

# Columbia Concrete Products

## PREVENTIVE MAINTENANCE

### Aggregate Bin Gate



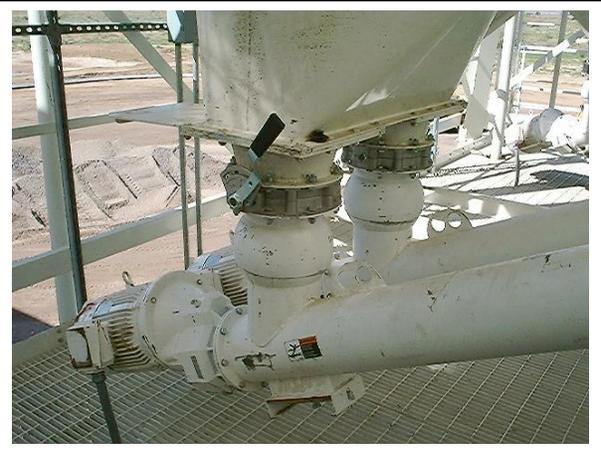
Item	Instruction		Maintenance
<b>Aggregate Bin Gate Assembly</b>	Clean all parts and check for cracks, wear and distortion.		Pay particular attention to opening and closing of gate, check for smooth operation. Check for cracks, and material leakage when closed. Grease as needed.
	Check all fasteners for tightness.		Check all fasteners to make sure that they are secure and all components are securely fastened.
	Check cylinder, hoses and fitting for good working condition and no leaks.		Inspect hoses fittings and cylinder for proper operation. Replace if found defective
	Inspect limit/proximity switch for proper function		Check area around switch for excessively buildup of material.
	Check for consistent material flow when gate is open.		If material is not flowing consistent, there may be blockage. Remove blockage.

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### Cement Screw Conveyor



Item	Instruction		Maintenance
<b>Cement Screw Conveyor Assembly</b>	Clean all parts and check for cracks, wear and distortion.		Check for cracks, and material leakage when closed. Grease as needed. Check motor gearbox for proper oil level. Add gear oil if needed.
	Check all fasteners for tightness.		Check all fasteners to make sure that they are secure and all components are securely fastened.
	Check Screw Conveyor discharge Gate for proper operation.		Inspect Gate for proper opening and closing, be sure that material is flowing freely when gate is open and screw conveyor is running.
	Check for consistent material flow.		If material is not flowing consistent, there may be blockage. Remove blockage.

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### Mixed Material Belt



Item	Instruction		Maintenance
<b>Mixed Material Belt Assembly</b>	Clean all parts for cracks, wear and distortion.		Inspect belt assembly for proper operation.
	Check all fasteners for tightness.		Check all fasteners to make sure that they are secure and all components are securely fastened.
	Check belt for wear		Inspect belt for proper tracking, signs of wear or cracking. Replace if found defective
	Inspect drive motor gearbox.		Check motor gearbox for proper oil level. Add gear oil if needed.
	Check support Rollers and bearings.		Inspect Drive rollers for wear and proper adjustment. Grease (if applicable), drive roller bearings.
	Clean area		Keep area around belt free of material, debris or other items.

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### Aggregate Incline Belt



Item	Instruction		Maintenance
<b>Aggregate Incline Belt Assembly</b>	Clean all parts for cracks, wear and distortion.		Inspect belt assembly for proper operation.
	Check all fasteners for tightness.		Check all fasteners to make sure that they are secure and all components are securely fastened.
	Check belt for wear.		Inspect belt for proper tracking, signs of wear or cracking. Replace if found defective
	Inspect drive motor gearbox.		Check motor gearbox for proper oil level. Add gear oil if needed.
	Check support Rollers and bearings.		Inspect Drive rollers for wear and proper adjustment. Grease (if applicable), drive roller bearings.
	Keep head – pulley area clear of material.		Inspect area around head-pulley, keep clear of material. Material build-up will cause premature wear of belt, bearings, and cause excessive load on drive motor.
	Emergency pull line		Inspect Emergency pull-line for proper working condition.

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### Aggregate Meterfeed Belt



Item	Instruction		Maintenance
<b>Aggregate Meterfeed Belt Assembly</b>	Clean all parts for cracks, wear and distortion.		Inspect belt assembly for proper operation.
	Check all fasteners for tightness.		Check all fasteners to make sure that they are secure and all components are securely fastened.
	Check belt for wear.		Inspect belt for proper tracking, signs of wear or cracking. Replace if found defective
	Inspect drive motor gearbox.		Check motor gearbox for proper oil level. Add gear oil if needed.
	Check support Rollers and bearings.		Inspect Drive rollers for wear and proper adjustment. Grease (if applicable), drive roller bearings.
	Keep head – pulley area clear of material.		Inspect area around head-pulley, keep clear of material. Material build-up will cause premature wear of belt, bearings, and cause excessive load on drive motor.
	Check Flow switch.		Inspect aggregate flow-switch for proper adjustment and operation.

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### Mixer



Item	Instruction		Maintenance
<b>Mixer Drum</b>	Clean all internal parts and check for cracks, wear and distortion		Clean all material buildup from blades, arms, and liners, head liners, and shaft. Pay particular attention to cleaning moisture probes so that moisture control is consistent from batch to batch.
	Check all fasteners for tightness		Check all fasteners internally to make sure that they are secure and all components are securely fastened.
	Make sure cleaning rings are not hung up and are free to function		Make sure that the cleaning ring welds are solid and that the rings are not hung up in any way and are free to perform their proper function.
	Inspect moisture probes for wear and cleanliness		Make sure that the moisture probes are not worn excessively and that buildup and cement paste are wiped clean.
	Check all wear parts for signs of cracking		Check all of the Ni-hard parts for any signs of cracking which could lead to a failure and a jam condition.

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## PREVENTIVE MAINTENANCE

### Mixer – (continued)



Item	Instruction		Maintenance
<b>Mixer Drum</b>	Check water pipe for signs of cracking.		See that the water pipe is not cracked due to excessive corrosion. Can lead to batch inconsistencies due to uneven water addition.
<b>Discharge Gate</b>	Clean all of discharge gate assembly and its associated parts.		Clean the buildup from the mixer gate and all its parts and from the mixer shell in the gate area so that it will open and close unobstructed.
	Check parts for cracks, corrosion, and wear and check welds for signs of failure		Check the discharge gate assembly for any signs of cracks, corrosion, or wear and make sure of the integrity of all welds. This is to prevent any problems that can cause improper gate operation.
	Check operation of cylinder and that gate properly opens and closes.		Make sure that the gate cylinder operates with no binding and that the gate opens and closes smoothly and leaves no opening whereby material leakage can occur.
<b>Air System</b>	Check Filter		Drain water from filter.
	Check gate pressure.		Check that gate pressure is set at suggested pressure of 120 psi for each open/close cycle.

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### Mixer – (continued)



Item	Instruction		Maintenance
<b>Blade Shaft</b>	Clean and inspect for cracks, corrosion, and wear.		See that the blade shaft has no signs of cracking, corrosion, or excessive wear. In mixers with shaft liners look for wear on the liners and in no case allow it to wear through to the shaft.
	Clean and inspect bearing housings for cracks.		Check housings for any signs of cracking or wear. If not critical, schedule for winter overhaul.
	Inspect dust seals for cracks, corrosion, and wear		Inspect seal retaining plate, dust hub, and plate for cracks, corrosion, or wear. Schedule for overhaul.
<b>Electric Motor</b>	Clean electric motor.		Check motor bearings, conduit, and connections.
	Check that electric motor is secure.		Check that motor mount bolts are secure and that motor is securely positioned.

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### Mixer – (continued)

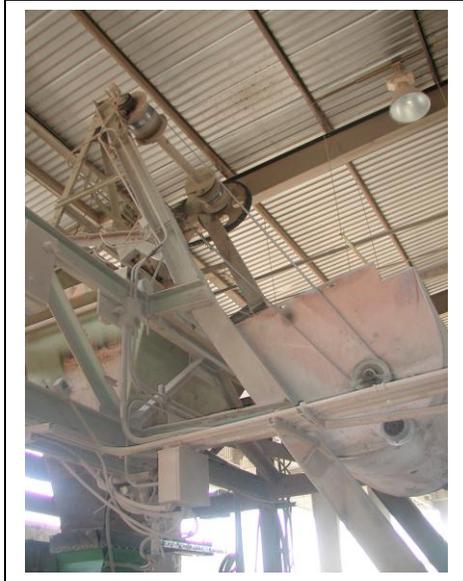


Item	Instruction		Maintenance
<b>Switches</b>	Confirm gate open and closed switch function.		Check that these switches, if present, perform the function they indicate and that the switches operate smoothly with no sticking.
	Confirm gate open and closed switch function.		Check that these switches, if present, perform the function they indicate and that the switches operate smoothly with no sticking.
	Confirm gate open and closed switch function.		Check that these switches, if present, perform the function they indicate and that the switches operate smoothly with no sticking.
<b>Guards</b>	Inspect and make sure all guards are properly installed.		Make sure that pulley guard and gear guard and oil case are properly installed for safety.
	Inspect all guards for cracks, corrosion, and wear.		Check all guards for cracking, rusting, and overall signs of wear.

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### Skip Hoist



Item	Instruction		Maintenance
<b>Skip Hoist</b>	Check cable for signs of broken strands.		Replace cable if signs of wear or broken strands.
	Inspect drum bearings for wear and grease		Grease bearings and replace bearing if worn or defective.
	Check and set limit switches for Skip travel.		Adjust switches if needed.
	Verify integrity and operation of cable switch.		Adjust switch for proper travel, replace if defective.
	Check that skip and pit guards are installed.		Make sure that all guards are properly installed. All safety signs should be visible, clean if needed, replace if worn.

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**Skip Hoist** (continued)

Item	Instruction		Maintenance
<b>Skip Hoist</b>	Check chains on reducer and cable drum for wear and proper tension.		Adjust chain if needed, replace if worn or defective.
	Inspect bucket safety stops.		Adjust bucket safety stops, replace if defective.
	Inspect sheave pins and bushings for wear and grease as needed.		Replace pins and bushings if worn or defective.
	Check top axle rollers and bushings for wear		Replace if defective
	Check bottom axle rollers and bushings for wear.		Replace if defective
	Check cable cables for security		Replace clamps if found worn or defective.
	Check level of oil in drive motor gear box.		Add oil if needed.