

Safeguarding storage bins

ANNUAL STEEL STORAGE BIN CHECKLIST



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ASSET FILE FOLDER

The following information should be collected and verified for each steel bin at the property and stored in a centralized location:

Date of Construction

USDA Bin Designation

Vendors

- General Contractor _____
- Purchase Agreement _____
- Concrete Engineer _____
- Concrete Contractor _____
- Bin Manufacturer _____
- Warranty _____
- Bin Erector _____

Plans

- Foundation Plans _____
- Construction Manual _____
- Bin Model Number _____
- Bin Diameter _____
- Bin Eave Height _____
- Bin Capacity in Bushels _____

Operations

- Bin Owners/Operators Manual _____
- Written operational procedures for bin loading _____
- Written operational procedures for fan operations _____
- Written operational procedures for bin unloading including clean-out procedures _____
- Written maintenance procedures for bin _____
- Written lock-out-tag-out procedures _____
- Written bin entry procedure _____

Inspections

- Photo documentation of bin during construction _____
- Initial inspection report prior to filling _____
- Annual inspection reports of bin with photos _____

Maintenance

- Record of maintenance conducted _____
- Date _____
- Activity _____
- Contractor _____
- Photos _____



INITIAL INSPECTION PRIOR TO FILING

The following information should be collected and verified for each steel bin prior to filling for the first time:

Date of Inspection

Foundation

- Verify foundation dimensions match design drawings _____
- Identify and document any foundation cracks _____
- Verify water flows away from the bin _____
- Verify water flows away from the foundation _____
- Verify bin is tight to the foundation _____
- Review transit readings to verify foundation is level _____

Walls

- Verify all panel bolts in place _____
- Clean-up all loose bolts _____
- Verify all anchor bolts are tight and vertical (no angled anchor bolts) _____
- Verify all wall wind rings are tight _____
- Verify all sweep ring bolts are tight and vertical _____
- Verify bin stiffeners that land on aeration tunnels are properly supported (vertical support installed between bin stiffener anchor plate and bottom of aeration tunnel) _____

Roof

- Verify all roof wind rings are tight _____
- Verify roof to sidewall connection _____
- Verify roof mounted equipment is properly secured _____

Openings

- Auxiliary sumps chained and padlocked _____
- Man access doors properly secured _____
- Equipment entry doors properly braced and secured _____

Equipment

- Operate all the following equipment:
- Grain Aeration Fans _____
 - Exhaust Fans _____
 - Sumps / Slide Gates _____
 - Reclaim Conveyor _____
 - Power Distributor _____
 - Sweep Auger _____
 - Side Draw Gates _____
 - Fill System _____

Training

- Provide training for grain handling employees on proper loading of metal bin and any special requirements for first time filling of bin _____
- Provide training for grain handling employees on proper unloading of metal bins _____



ANNUAL INSPECTION AT CLEAN OUT

The following information should be collected and verified for each steel bin at the time it is emptied each year:

Date of Inspection

- Foundation**
- Identify and document any foundation cracks _____
 - Verify water flows away from the bin _____
 - Verify water flows away from the foundation _____
 - Verify foundation is level _____
 - Verify bin is tight to the foundation _____
 - Check all anchor bolts are tight _____
 - Document any apparent movement of stiffener anchors _____

- Walls**
- Verify bin stiffeners are attached and plumb _____
 - Check bin for rust _____
 - Check for bent or damaged bin corrugated panels _____
 - Check for missing, loose or broken bin bolts _____
 - Check to see if any bin bolts are on the ground around the bin _____
 - Verify all wall wind rings are tight _____

- Roof**
- Verify all roof wind rings are tight _____
 - Check the bin roof connections _____

- Openings**
- Check man access doors and equipment entry doors for damage _____

- Equipment**
- Verify condition of all the following equipment:
- Grain Aeration Fans _____
 - Exhaust Fans _____
 - Sumps / Slide Gates _____
 - Reclaim Conveyor _____
 - Power Distributor _____
 - Sweep Auger _____
 - Side Draw Gates _____
 - Fill System _____

- Training**
- Provide annual refresher training for grain handling employees on proper loading and proper unloading of metal bins _____
 - Provide annual refresher training on lock-out-tag-out procedure _____
 - Provide annual refresher training for bin entry procedure _____

- Record any maintenance activities conducted**
- Date _____
 - Activity _____
 - Contractor _____
 - Photos _____

- Miscellaneous**
- Document the condition of the bin and foundation - review and photograph _____



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