



KNOWLEDGE BASE

Article Type: Instructions

Feed Drawer Rebuild, for Models, 22HF, 16HF, 1600 machines

Description:

Instructions on “How to” properly remove and rebuild a Feed Drawer.

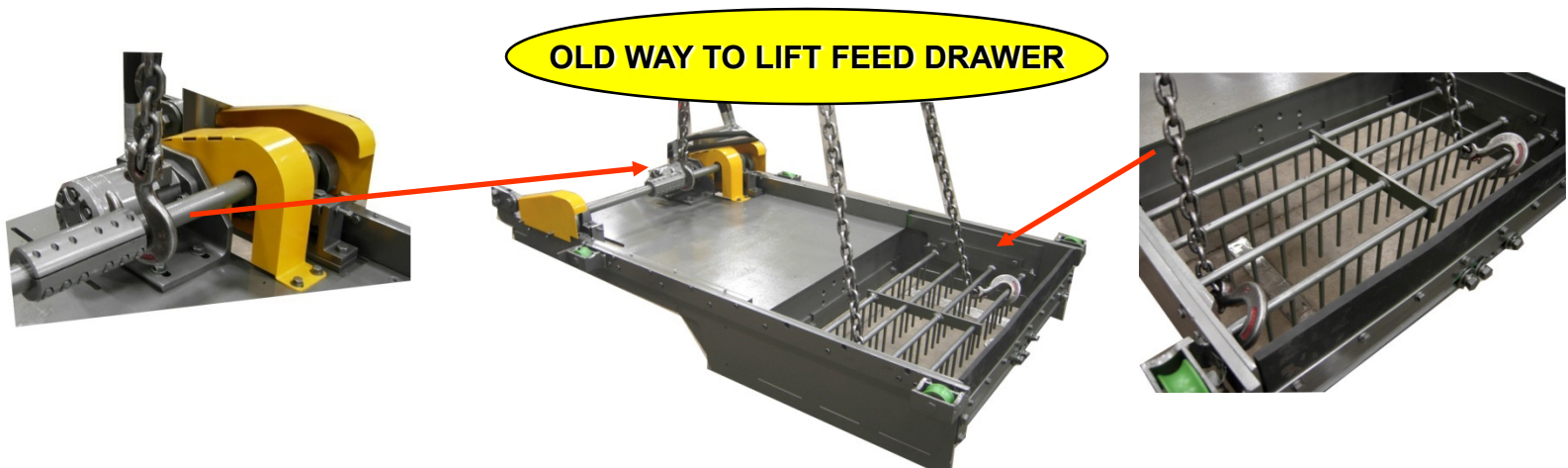
WARNING

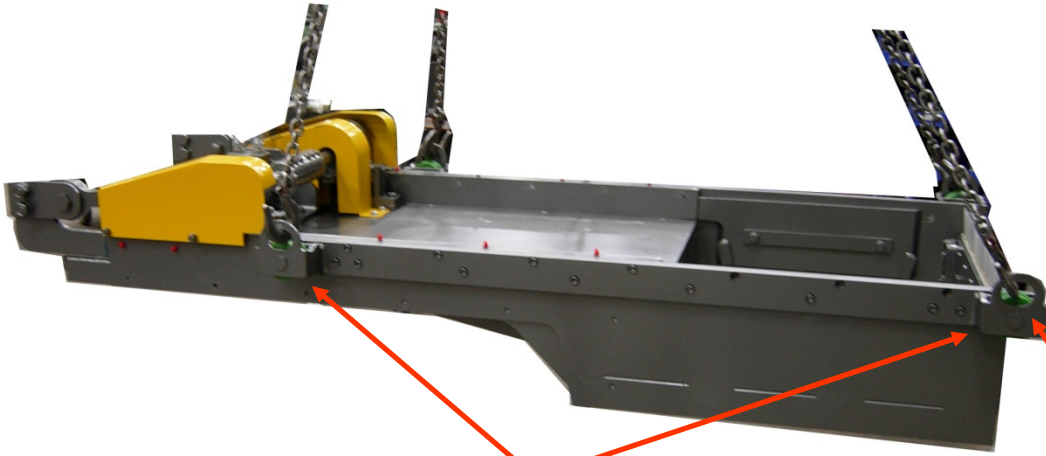
Never work on, clean or service this unit, control panel or any machine or open or remove any protective cover, guard, grate, door, or maintenance panel until the power or energy sources has been turned off, locked out / tagged out, and all moving parts have come to a complete stop and or blocked to prevent movement. Machinery is dangerous - avoid personal injury and or death by following manufacture, Local, and OHSА safety procedures. Contact Columbia Machine for safety decals, guards, horns and beacons.

FLOOR LEVEL FEED DRAWER REBUILD

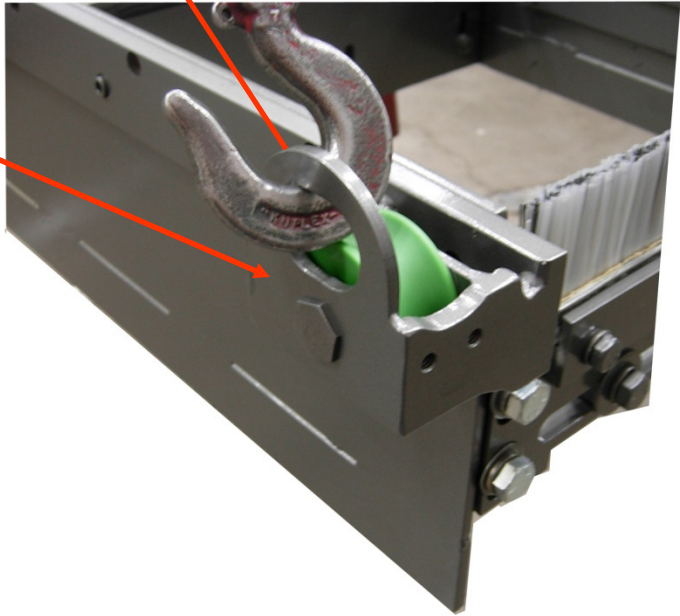
Feed Drawer Removal for Rebuild

- Place machine in manual operation put feed drawer in back position, and beams in down position.
- Turn pump off, lock-out and tag-out electrical and hydraulic systems.
- Remove hopper from over feed drawer.
- Detach agitator drive hoses, cap off motor and hose fittings.
- Remove the feed drawer assembly from machine by using lifting eyes. On older machines this is best done by putting chain or straps around the agitator shaft and two around agitator (rack) bars as shown. Keep feed drawer level when lifting to keep from damaging the cylinder rod and gland.



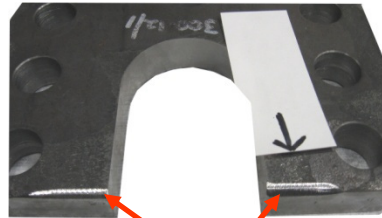
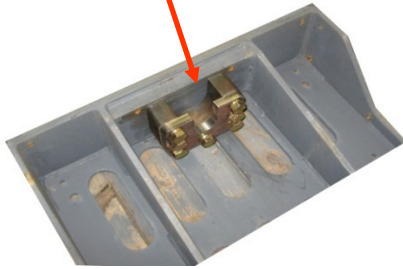


FEEED DRAWER EQUIPPED WITH THE NEW LIFTING EYE WHEEL SUPPORT BRACKETS.



- Turn feed drawer over so you can inspect the cylinder rod end mount for damage.

AREA TO INSPECT



NEW REPLACEMENT PART

CHAMFER BOTTOM INSIDE EDGE AS SHOWN

- With feed drawer removed place on fixture (see photos below) or suitable table to work from.



FEED DRAWER FIXTURE TABLE

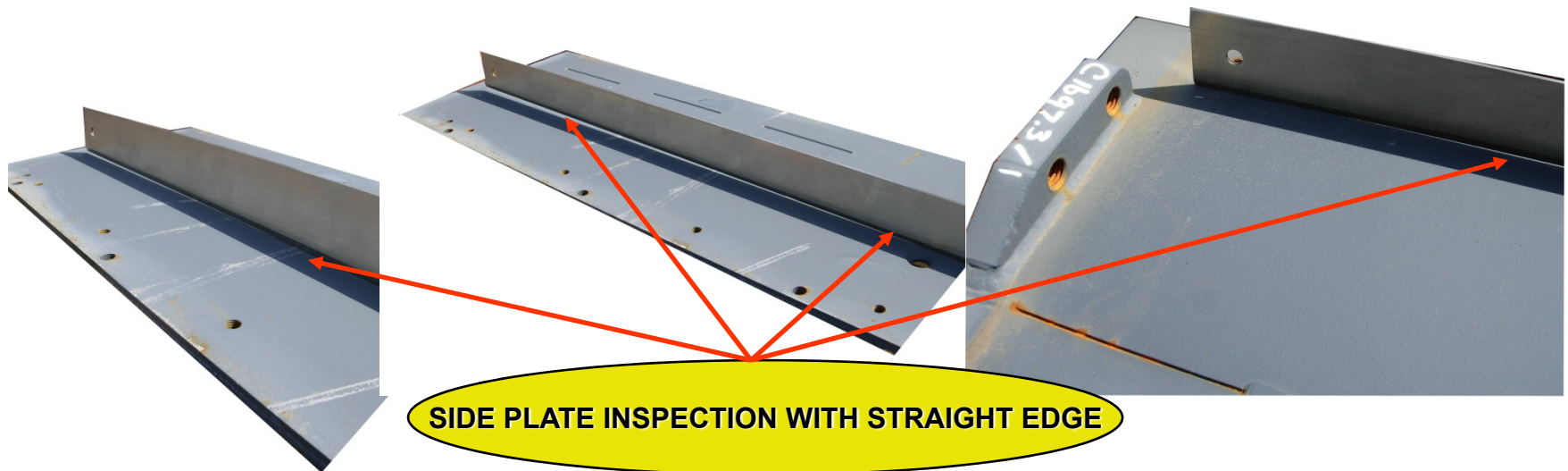


- Remove old side plates, slide bars, wear bar and reusable spreader/wiper bar.
- Clean parts being reused with wire wheel or wire brush.
- Clean all threaded holes with correct size and thread tap.

Feed drawer reassembly using rebuild kit

For extra vibration residence use 242 Blue Loc-Tite on all fasteners.

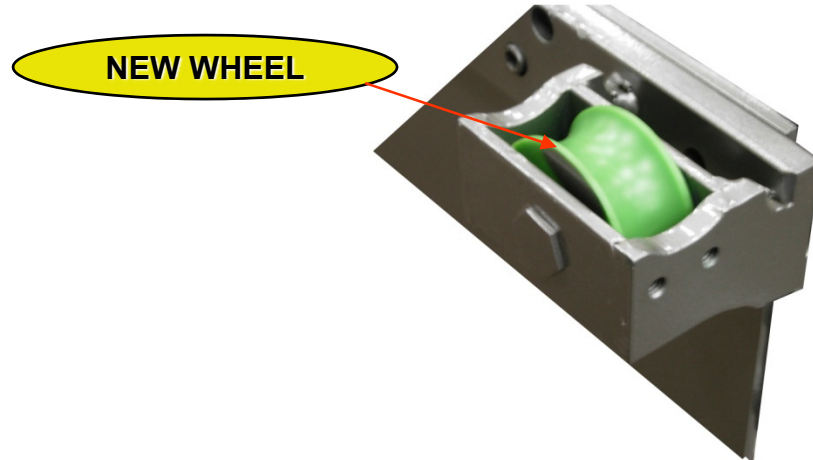
- Bolt both new side plates back to back and inspect position of all drilled holes.
- The new side plates need inspecting with a straight edge as shown, flame straighten as needed so part is flat. (see photos)



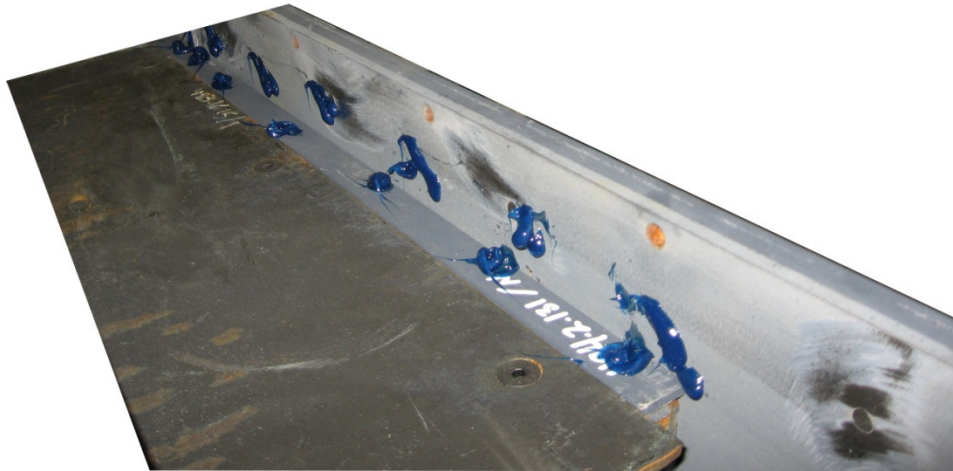
- Clean all threaded holes by chasing holes with a tap.



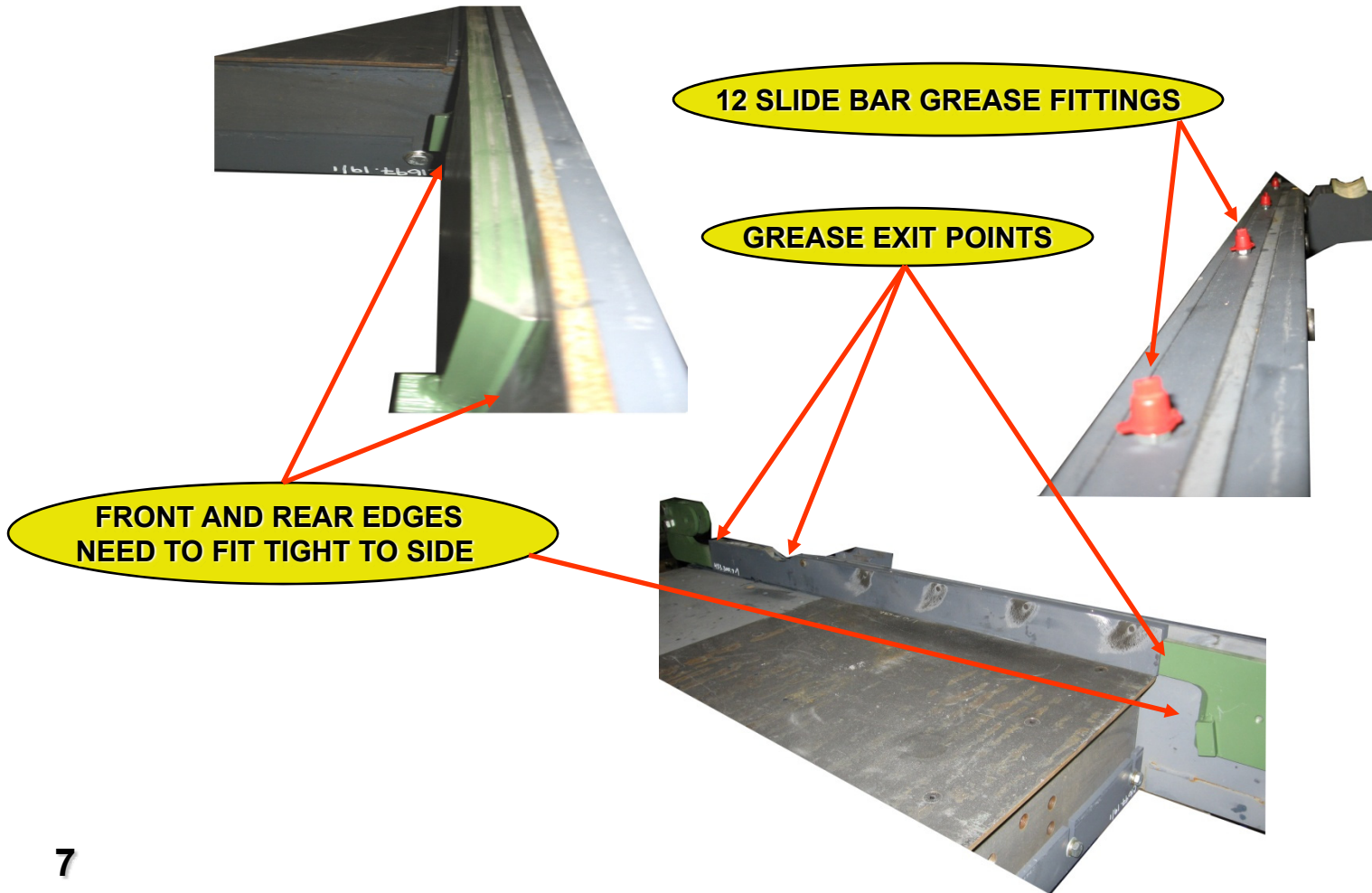
- Install wheel support bars on side plates, flip over, grind off extra wheel support bolt length so back side is smooth. Install new wheels, check rails that the feed drawer rides on located on the feed box. Rails can be rotated or replaced as needed.



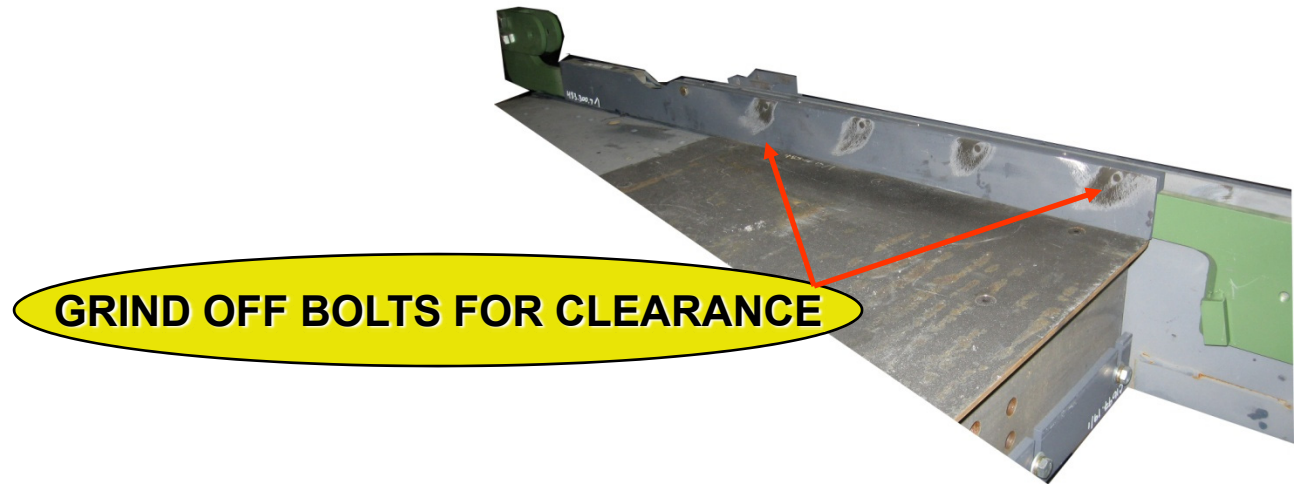
- Install side plates to main frame, with all counter sunk fasteners in place and snug.
- Level side plates to main frame top surface and to each other. Do this by measuring from top surface of main frame to top of drilled holes in side plate. Use one hole on front end and one on the back end of each side plate.
- With side plates level tighten all side plate mounting fasteners and torque to 80 foot pounds.
- Install bottom slide bar wear strips and bottom wear plate.
- Apply liberal amount of grease to wear strip and inside portion of side plate. (see photo)



- Check slide bars for flatness and straighten if needed, now install, double check front end is flat against side plate.
- Install top wear bars and side plate for slide bars to enclose. With this area enclosed install grease fitting and grease till grease exits the opens ends of slide bars.



- With slide bars mounted and greased apply masking tape to open ends and a strip along bottom edge to seal out grinds of cover plate. Grind off extra bolt length so inside is smooth.



- Connect link arms (dog bones) to slide bar attachment end. Rotate drive shaft by hand, this should rotate freely, also check chain and drive sprockets for alignment and chain tension.
- Install link arm guards.
- Install agitator grate (rack) and front spreader bar/wiper assembly.
- Double check all fasteners are tight or torqued as required and system has been completely greased.
- Attach lifting chains, lift feed drawer and reinstall feed drawer to machine. Feed drawer must be level so it will fit over cylinder rod end. (NOTE: Make sure cylinder is in the retracted (full back) position before installing feed drawer to prevent cylinder damage).

- Reinstall hopper assembly.
- Connect hydraulic hoses for agitator.
- Remove locks and put machine in slow mode with rear valve or selector switch.
- Move feed drawer forward full stroke and back fully five times, recheck for problems and adjust if needed.
- Put machine in service.
- If you have further questions or concerns please call Columbia Machine service department for assistants @ 800-628-4065