

Frame

- Bolts on xyz corners must be tightened to the point where metal frame bends slightly
- Bolts are ¾ inch bolt.
- Nuts are metal lock nuts
- Hood is installed to protect operator from falling objects
 - Installed tightly
- Seat belt is installed properly
- Perpendicularity of frame is ensured
- Use washers on all bolts
- Screen is mounted below seat to prevent damage to operator
- Sharp edges are ground down to prevent lacerations to operator
- Seat is firmly tightened to frame

Quick attach wheels

- Two physical stops are present to prevent quick attach wheel sliding
- All bolts are tight
- Collars are tight on shaft
- Bearing is tightly mounted to mount plate
- Bolts on inside of wheel are tight
- Tires are inflated to the point of maximum pressure (see mfr specifications)
- Wheel tracks are tight
- Rebar is welded at two points to each chain link
- Rebar tracks are not cracked at bend points
- Grade 8 bolts are used to pin wheel to axle
- Wheels are not cracked or dry-rotten
- Quick connect lever is tight and cannot move unless quick attack mount bolts are loosened

Loader Arms

- Collar is present on shaft to prevent loader arms from sliding off
- Two spacing washers are present on shaft between frame and loader arms
- No gaps exist between loader arm, collar, and washers
- Cotter Pin connecting hydraulic cylinder to loader arm is present
- Hydraulic cylinder has no leaks
- Mounting plate is firmly attached to frame
- Hydraulic hoses are not frayed
- Cushion valve is present in hydraulic system and adjusted to ensure smooth loader arms stops
- All welds on loader arms are present
- Top frame members are notched out to make space for cotter pin during loader arm elevation

- Secondary Hydraulic mount cylinder is attached to loader arms with a cotter pin
- Pins for quick attach plate are not overly long
- Cylinder mounts have solid welds
- Attachment I's are not welded directly to quick attach plate. A ½ in plate should be welded between the two.
- Loader can extend fully up and down.
 - Tractor is lifted at bottommost position of loader arms
- Quick attack plate should be at a 45 degree angle to loader arms when fully extended
- Main cylinder does not scrape frame at any location

Hydraulic system

- No leaks are visible
- Compression fittings do not use thread tape
- Case drain hoses are attached to all four motors
- All fittings are tight
- Hose assembly includes pressure relief valve
- Main drive hose is attached to power cube and inlet of hydraulic system
- Control Valves
 - Levers move freely without hitting mount plate
 - Pressure relief is adjusted to about 2000 PSI for regular use
 - All bolts are firmly attached
 - Auxiliary ports all have quick connect couples
- Hydraulic hoses are loose in all configurations

Power Cube

- First position of key turns fan on
- Off mechanism properly turns off cube
- Battery terminals are tight
- Charging wire is connected
- Coupler is firmly attached
- Coupler is freely movable from top of engine
- All 3 fluid levels
 - Oil is full
 - Hydraulic Fluid is filled 2/3 of max capacity
 - Gasoline tank is full
- Hydraulic Tank is no leaks
 - Passes pressurized soapy water test
- Mufflers are on tightly
- Hydraulic cooler is attached tightly

- Small gap between fan and hydraulic cooler is present
- Sharp corners are grinded down to prevent lacerations
- Paint all steel components
- Safety screen is present to protect hydraulic fluid cooler
- Double Chain sprocket couplers are used instead of polymer spider couplers and stiff couplers
- Pump mounting plate is parallel to engine mounting plate
- Ensure no leaks are present in system
- Spark plugs spark prior to cranking engine
- Both cylinders fire
- Heat leaves both mufflers'
- Filler cap is placed away from heat sources, i.e. muffler
- Power cube is mounted parallel to frame and bolted in position
- Fan spins freely
- No wires can come into contact with fan blades or other moving parts
- Hydraulic cooler is mounted with rubber mounts
- Hydraulic hoses avoid direct contact with head sources
- Connection between to power cubes is open prior to starting power cubes