AIR
DRILL
CART

ADC2220

DRILL MAINTENANCE

Proper servicing and adjustment is the key to the long life of any farm implement. With careful and systematic inspection of your grain drill, you can avoid costly maintenance, time and repair.

1) After using your drill for several hours check all bolts to be sure they are tight. Refer to torque values chart in your operator’s manual.
2) Lubricate all chains with chain lube.
3) Check for the proper air pressure in the cart tires: 28 psi in the 21.5Lx16.1SL
4) Check all chain idlers for proper adjustment. Check that each idler is taking up excess chain slack. DO NOT OVER TIGHTEN CHAINS. Adjust until the pull side of chain has no more than a ¼ inch of movement from the centerline of the pull.
5) Re-pack the wheel bearings annually.
6) Grease the gearbox shaft bearings every 50 hours.
7) Grease the jack shaft bearings and clutch shaft bearings every 10 hours.
   NOTE: Always refer to your owners manual.

ADJUSTMENT BEFORE GOING TO THE FIELD

1) Hitching drill to the tractor.
   A) Attach the tractor to the cart. The air cart frame should be level front to back. Relocate hitch clevis if required on the cart.
   B) The hydraulic hose ends are color-coded. A single tie of a particular color is for cylinder extension and the fan motor. Two ties of a particular color are for cylinder retraction.

<table>
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<tr>
<th>TIE COLOR</th>
<th>HYDRAULIC FUNCTION</th>
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<tr>
<td>* Blue</td>
<td>Field Lift</td>
</tr>
<tr>
<td>* Orange</td>
<td>Marker / Auger</td>
</tr>
<tr>
<td>* Yellow</td>
<td>Fan / Fold</td>
</tr>
<tr>
<td>* Black</td>
<td>Sump Return</td>
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NOTE: The fan circuit hose with one yellow tie is a ½ inch hose, and the hose with two yellow ties is 3/8 inch.
C) When attaching the sump return line, make sure that the quick coupler is the over-sized connector supplied with the cart. This tip is designed to reduce the backpressure on the fan circuit as the oil returns into the tractors hydraulic reservoir. Refer to your tractor operator’s manual for the proper fan return location. Having too much restriction on return oil can cause the fan seals to fail and the implement wing down pressure to not work correctly.

2) Install the monitor control box in a convenient location in the tractor cab.
   A) Attach the black lead to the battery ground and the red lead to the +12v DC power. This power lead is for both the clutch and monitor box. On the power lead there is two identical wire connectors. One goes to the clutch, and the other goes to the monitor control box. The monitor box and clutch box must both be plugged separately into the power lead, if not damage will occur to the monitor box.
   B) Connect the 12-pin connector lead to the cart harness, leaving enough slack for turning and secure any excess wire.

   NOTE: The Vansco monitor settings are stored in non-volatile memory, which means that if power is disconnected, the information is retained.

3) Check the drive system on the cart for the correct sprockets for the implement being used. The three locations that are affected are:
   A) The main transfer shaft. (the shaft under the clutch shaft)
   B) The clutch (the sprocket bolt on the electrical clutch)
   C) The gearbox output shaft.
4) When setting a seed rate, there are two places that require a driver and a driven sprocket. One is the quick-change sprocket on the gearbox to metering box, and the second set is the meter box gears on the opposite side of the quick-change sprockets. When installing these sprockets and gears, always check for the correct placement of the driver and driven location.

a.) Refer to the charts to find the proper sprocket orientation, gear set and gearbox speed for your desired seeding rate.

b.) Adjust the quick-change sprocket, meter box gears, and shift the two gear handles to the letter and number on the indicator plate. Always disengage the gearbox clutch before shifting to prevent damage to the gearbox.

c.) Place several bushels of seed in the grain box.

d.) Open the REAR calibration door.

NOTE: Do not open the front door unless clean-out is desired.

e.) Place the calibration bag under the meter box.
f.) Place the hand crank onto the gearbox sprocket shaft and turn crank at approximately 2 seconds per revolution. (If this speed is not held, the seeding rate will be different than desired) Turn seed handle clockwise. On units with five towers turn the hand crank 66 ¾ revs. For an implement that uses four towers, turn the hand crank 83 ¼ revs.
g.) Weigh the calibration bag with seed and subtract the weight of the empty container to find the seeding rate.

5) Engage the hydraulic lever that runs the fan into detent, run fan for 15 minutes to warm the oil, then adjust the hydraulic oil flow until desired fan speed (RPM) on the monitor is in the range for seed type. Increase fan speed for heavier seeding rates, and lower for lighter seeding rates. Use enough air to move the seed with out plugging the seed tubes for lack of air. Cracking or bouncing the seed out of the trench is caused by excessive air. Do not exceed 5000 rpm on the fan speed.

<table>
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<th>Fan Speed Chart</th>
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<td><strong>SUNFLOWERS</strong></td>
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<tr>
<td><strong>WHEAT</strong></td>
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<tr>
<td><strong>SOYBEANS</strong></td>
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<td><strong>MILO</strong></td>
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a.) With the fan running, take the hand crank and turn the meter box, as this will place seed into the tubes. Go back behind the openers and check for seed under the disc openers. This will find any plugged hose or openers.
b.) Check for any leaks around the lid by placing flour or talc around the lid before turning on the fan. If the flour moves, adjust the lid handle latch.

6.) For monitor set-up, refer to the monitor owner's manual.

**FIELD ADJUSTMENT**

1.) Check that the in-cab clutch rocker switch is on.
2.) Turn the monitor on.
3.) Engage the hydraulic lever for the fan. Start at a low rpm.
4.) Engage the hydraulic lever that controls the down pressure for the CTA only.
5.) Lower the implement, as the tractor is moving forward.
6) Adjust the implement.