



Pre-delivery Checklist 3320 SERIES

DATE: _____

DEALERSHIP: _____

ORDER NUMBER: _____

SERIAL NUMBER: _____

FINAL SPECS:



Size	3320-30	3320-40	3320-50	3320-60	3320-66	3320-76	3320-86
Spacing		10"		12"			
High Flootation				yes / no	yes / no	yes / no	Standard
Dual Castors (40' & 50' only)		yes / no	yes / no				
Seedboots		BTT		Other			
Blockage		Single - 591		Full run - 591		Single run - X30	
MRB 3		yes / no	***IF YES PRINT OFF MRB III PDI AS WELL***				
Packers		4.5 V	4.5 round	5.4 round		4.8 pneumatic	
Single shoot		yes					
Double Shoot		yes					
Primary Manifold		6 Port		8 Port		10 Port	
Auto Section Control		yes					
Rear drop hitch		yes / no					

Electrical Hardware:

Item	Part #	Serial #	
EM-24	3132-33		<i>if unit is equipped with blockage</i>
EM-24	3132-33		<i>if unit is a leading equipped with ASC</i>
591 Blockage module	3120-98-09		
CM-40	3132-32		<i>if unit is equipped with down pressure sensing</i>

SHORTAGES: _____

Opener Assemblies

Opener raising and lowering procedure

It is very important to follow recommended procedures to raise and lower openers.

Failure to follow this procedure may cause a sudden drop of the openers!

The **best** procedure for raising and lowering the openers is to use the Bourgault 410 control box.

The second method to raise and lower the openers is to use the tractor remote connected to the depth circuit of the drill. When using the tractor valve to raise and lower the openers you must make sure that the inner wing down-pressure is close to zero psi.

(if there is pressure in the wing lift circuit the opener valve may open and let the openers drop)

***** No matter which method is used always release any residual inner-wing down-pressure*****

For checking the locations of the openers use the included drawing that came with the unit.

If any torque's are found to not meet the spec all must be checked.

On Unit Checks	Check Off
Check paint for chips repair as necessary	
BTT openers (if installed) are secured and in the top two holes	
Grease all packers till grease comes past seal	
All fasteners on openers are tight	
Packer wheel lugs are torqued to 85 ft.lbs. +/-10 ft.lbs. (Check 5 wheels)	
Packer shaft 3/4" nut is torqued to 200 ft.lbs (Physically Check 5 and visually verify the rest)	
U-bolts are tightened evenly (Even amount of threads showing past nuts on all u-bolts)	
Hose clamps tightened so that hose is visibly deformed up to a max 1/16" per side (seed-boot) (Check 5)	
Ensure hose clamp screw body on seed-boot is oriented to the rear to increase trash flow	
PHD Opener Only - Tighten 5/8"x6" cast mount bolts until sides of the side plate mount casting (#9305-20-01)start to deflect (check 5)	
Correct L/R opener assemblies are used as per drawing (Check 5)	
If unit was a haul opener was installed on trailing hitch	
Air pressure has been confirmed on all pneumatic packer tires. (20 PSI +/-3 PSI)	
Make sure all openers are set the same	

Section is Complete: _____

MRB III INSPECTION (IF INSTALLED)	
PRINT SEPARATE PDI FORM FROM THE WEB SITE	

Standard - Wheel Torques and Wheel Pressures

Tolerance (Pressure) = ± 3 psi
 Tolerance (Torques) = ± 15 ft-lb

7/8" Socket & 15/16" Socket

Load Range	B - C - D - E - F
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For the tire pressures refer to the decal on the front hitch of the drill. Use the spaces provided beside each tire to record the pressure and wheel torque from each wheel.

3320-40									
Right Wing Outer Tire	11L x 15FI- C	psi		ft/lbs					
Right Wing Inner Tire	11L x 15FI- C	psi		ft/lbs					
MF Right Outer Tire	13.5L X 15FI - F	psi		ft/lbs					
MF Right Inner Tire	13.5L X 15FI - F	psi		ft/lbs					
MF Left Inner Tire	13.5L X 15FI - F	psi		ft/lbs					
MF Left Outer Tire	13.5L X 15FI - F	psi		ft/lbs					
Left Wing Inner Tire	11L x 15FI- C	psi		ft/lbs					
Left Wing Outer Tire	11L x 15FI- C	psi		ft/lbs					
Left wing rear tire	11L x 15FI- C	psi		ft/lbs					
Left wing rear Dual	11L x 15FI- C	psi		ft/lbs					
Left Outer Transport	11L x 15FI- C	psi		ft/lbs					
Left Inner Transport	11L x 15FI- C	psi		ft/lbs					
Right Inner Transport	11L x 15FI- C	psi		ft/lbs					
Right Outer Transport	11L x 15FI- C	psi		ft/lbs					
Right wing rear tire	11L x 15FI- C	psi		ft/lbs					
Right wing rear Dual	11L x 15FI- C	psi		ft/lbs					
3320-50					3320-60				
Right OW Outer Tire	11L x 15FI- C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
Right OW Inner Tire	11L x 15FI- C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
Right IW Outer Tire	11L x 15FI- C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
Right IW Inner Tire	11L x 15FI- C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
MF Right Outer Tire	13.5L X 15FI - F	psi		ft/lbs	16.5 x 16.1FI- E	psi		ft/lbs	
MF Right Inner Tire	13.5L X 15FI - F	psi		ft/lbs	16.5 x 16.1FI- E	psi		ft/lbs	
MF Left Inner Tire	13.5L X 15FI - F	psi		ft/lbs	16.5 x 16.1FI- E	psi		ft/lbs	
MF Left Outer Tire	13.5L X 15FI - F	psi		ft/lbs	16.5 x 16.1FI- E	psi		ft/lbs	
Left IW Inner Tire	11L x 15FI- C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
Left IW Outer Tire	11L x 15FI- C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
Left OW Inner Tire	11L x 15FI- C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
Left OW Outer Tire	11L x 15FI- C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
Left OW Rear Tire	11L x 15FI- C	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	
Left OW Rear Dual	11L x 15FI- C	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	
Left IW Rear Tire	11L x 15FI- C	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	
Left IW Rear Dual	11L x 15FI- C	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	
Left Outer Transport	11L x 15FI- D	psi		ft/lbs	13.5L X 15FI - F	psi		ft/lbs	
Left Inner Transport	11L x 15FI- D	psi		ft/lbs	13.5L X 15FI - F	psi		ft/lbs	
Right Inner Transport	11L x 15FI- D	psi		ft/lbs	13.5L X 15FI - F	psi		ft/lbs	
Right Outer Transport	11L x 15FI- D	psi		ft/lbs	13.5L X 15FI - F	psi		ft/lbs	
Right IW Rear Tire	11L x 15FI- C	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	
Right IW Rear Dual	11L x 15FI- C	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	
Right OW Rear Tire	11L x 15FI- C	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	
Right OW Rear Dual	11L x 15FI- C	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	
3320-66					3320-76				
Right OW Outer Tire	13.5L X 15FI - C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
Right OW Inner Tire	13.5L X 15FI - C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
Right IW Outer Tire	13.5L X 15FI - C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
Right IW Inner Tire	13.5L X 15FI - C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
MF Right Outer Tire	16.5 x 16.1FI- E	psi		ft/lbs	16.5 x 16.1FI- E	psi		ft/lbs	
MF Right Inner Tire	16.5 x 16.1FI- E	psi		ft/lbs	16.5 x 16.1FI- E	psi		ft/lbs	
MF Left Inner Tire	16.5 x 16.1FI- E	psi		ft/lbs	16.5 x 16.1FI- E	psi		ft/lbs	
MF Left Outer Tire	16.5 x 16.1FI- E	psi		ft/lbs	16.5 x 16.1FI- E	psi		ft/lbs	
Left IW Inner Tire	13.5L X 15FI - C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
Left IW Outer Tire	13.5L X 15FI - C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
Left OW Inner Tire	13.5L X 15FI - C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
Left OW Outer Tire	13.5L X 15FI - C	psi		ft/lbs	13.5L X 15FI - C	psi		ft/lbs	
Left OW Rear Tire	11L x 15FI- D	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	
Left OW Rear Dual	11L x 15FI- D	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	
Left IW Rear Tire	11L x 15FI- D	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	
Left IW Rear Dual	11L x 15FI- D	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	
Left Outer Transport	13.5L X 15FI - F	psi		ft/lbs	13.5L X 15FI - F	psi		ft/lbs	
Left Inner Transport	13.5L X 15FI - F	psi		ft/lbs	13.5L X 15FI - F	psi		ft/lbs	
Right Inner Transport	13.5L X 15FI - F	psi		ft/lbs	13.5L X 15FI - F	psi		ft/lbs	
Right Outer Transport	13.5L X 15FI - F	psi		ft/lbs	13.5L X 15FI - F	psi		ft/lbs	
Right IW Rear Tire	11L x 15FI- D	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	
Right IW Rear Dual	11L x 15FI- D	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	
Right OW Rear Tire	11L x 15FI- D	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	
Right OW Rear Dual	11L x 15FI- D	psi		ft/lbs	11L x 15FI- D	psi		ft/lbs	

Comments : _____

Sheet is Complete: _____

High Floatation - Wheel Torques and Wheel Pressures

Tolerance (Pressure) = ± 3 psi
 Tolerance (Torques) = ± 15 ft-lb

Load Range	B - C - D - E - F
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7/8" Socket & 15/16" Socket

Use the spaces provided beside each tire to record the pressure and wheel torque from each wheel. Do not adjust pressure if it matches decal, the drill has been leveled at the factory.

3320-60				3320-66			
Right OW Tire	540/65R24	psi	torque	540/65R24	psi	torque	
Right IW Tire	540/65R24	psi	torque	540/65R24	psi	torque	
MF Right Tire	800/65R32	psi	torque	800/65R32	psi	torque	
MF Left Tire	800/65R32	psi	torque	800/65R32	psi	torque	
Left OW Tire	540/65R24	psi	torque	540/65R24	psi	torque	
Left OW Tire	540/65R24	psi	torque	540/65R24	psi	torque	
Left OW Rear Tire	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	
Left OW Rear Dual	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	
Left IW Rear Tire	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	
Left IW Rear Dual	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	
Left Outer Transport	13.5L X 15FI - F	psi	torque	13.5L X 15FI - F	psi	torque	
Left Inner Transport	13.5L X 15FI - F	psi	torque	13.5L X 15FI - F	psi	torque	
Right Inner Transport	13.5L X 15FI - F	psi	torque	13.5L X 15FI - F	psi	torque	
Right Outer Transport	13.5L X 15FI - F	psi	torque	13.5L X 15FI - F	psi	torque	
Right IW Rear Tire	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	
Right IW Rear Dual	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	
Right OW Rear Tire	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	
Right OW Rear Dual	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	
3320-76				3320-86			
Right OW Tire	540/65R24	psi	torque	540/65R24	psi	torque	
Right IW Tire	540/65R24	psi	torque	540/65R24	psi	torque	
MF Right Tire	800/65R32	psi	torque	800/65R32	psi	torque	
MF Left Tire	800/65R32	psi	torque	800/65R32	psi	torque	
Left IW Tire	540/65R24	psi	torque	540/65R24	psi	torque	
Left OW Tire	540/65R24	psi	torque	540/65R24	psi	torque	
Left OW Rear Tire	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	
Left OW Rear Dual	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	
Left IW Rear Tire	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	
Left IW Rear Dual	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	
Left Outer Transport	13.5L X 15FI - F	psi	torque	13.5L X 15FI - F	psi	torque	
Left Inner Transport	13.5L X 15FI - F	psi	torque	13.5L X 15FI - F	psi	torque	
Right Inner Transport	13.5L X 15FI - F	psi	torque	13.5L X 15FI - F	psi	torque	
Right Outer Transport	13.5L X 15FI - F	psi	torque	13.5L X 15FI - F	psi	torque	
Right IW Rear Tire	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	
Right IW Rear Dual	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	
Right OW Rear Tire	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	
Right OW Rear Dual	11L x 15FI- D	psi	torque	11L x 15FI- D	psi	torque	

Comments : _____

Sheet is Complete: _____

CASTORS	CHECK OFF			
	LOW	LIW	RIW	ROW
Walking castor wheels have short offset to the rear of the machine				
Walking castors have the leading tire assembled towards the inside of the unit				
All castors are greased				
All bolts on castor assemblies are tight				
All Dustcaps installed on hubs				
No excess gap between castor pivot axle wear plates (.060" max)[approx. thickness of a quarter]				

Section is Complete: _____

Running Gear mounting hardware	
	CHECK OFF
Rear arms that are weighted are on the outer wings	
MF Caster/Rear Transport Extension 1" bolts torqued to 400 ft.lbs (-0/+20) 1-1/2 socket	
MF Caster/Rear Transport Extension 3/4" bolts torqued to 200 ft.lbs (-0/+20) 1-1/8 socket	
Wing Caster/Rear Transport Extension 1" bolts torqued to 400 ft.lbs (-0/+20) 1-1/2 socket	
Wing Caster/Rear Transport Extension 3/4" bolts torqued to 200 ft.lbs (-0/+20) 1-1/8 socket	

Section is Complete: _____

Safety Lights	
All Safety Lights work	

Section is Complete: _____

AIR KITS & GRANULAR KITS

Primary Stand Check	
	CHECK OFF
Ensure that the Quick Coupler can be easily removed by hand	<input type="checkbox"/>
Over center latches installed correctly, move freely, lock pin fits (6000 series air kits or L7000)	<input type="checkbox"/>
Left side primary manifold feeds shanks not MRB's (if so equipped)	<input type="checkbox"/>
Band clamps are tightened on Kanaflex hose (Primary stands)	<input type="checkbox"/>
Ensure that excessive kanaflex hose is trimmed to ensure that there are no large droops	<input type="checkbox"/>

Section is Complete: _____

Secondary Stands Check	
	CHECK OFF
Ensure the labels on the 2.5" hose matches the manifold that it is attached too. (7000 series)	<input type="checkbox"/>
Quick Inspection Manifolds are seated properly in the manifold head, with spring clips installed properly.	<input type="checkbox"/>
Band clamps are tightened on Kanaflex hose (all 2-1/2" hoses)	<input type="checkbox"/>
All muffler clamps have been tightened evenly on secondary manifold stands	<input type="checkbox"/>
Tertiary hoses for M.R.B.s have been hose clamped onto the seedboot/fertilizer boot	<input type="checkbox"/>
Tertiary hoses are fully seated in secondary manifold (open caps and visually inspect)	<input type="checkbox"/>
Tertiary hoses have hose clamps installed and tightened at seed boots and manifolds	<input type="checkbox"/>
All band clamps are tight on poly manifolds	<input type="checkbox"/>
Shorten any secondary 2-1/2" hoses that have excessive length.	<input type="checkbox"/>
Ensure with the openers and banders on the ground that there is no uphill run in the tertiary hoses going to the secondary manifolds (should look like the canopy of an umbrella)	<input type="checkbox"/>

Section is Complete: _____

Blockage Monitors (If Installed)	
	CHECK OFF
For units with Blockage Modules, ensure that the optical sensor is mounted on the longest hose.	<input type="checkbox"/>
Labels are installed on Optical Sensor Extension Cable (1 near Optical Sensor and 1 near Module Box)	<input type="checkbox"/>
For 1" hose ensure hose clamps are oriented correctly on blockage, refer to picture below, threads between tabs. For sensors on 7/8" hose there should be a second clamp for the insert and the sensor over the insert.	<input type="checkbox"/>
Module Boxes are properly labeled	<input type="checkbox"/>
Sensor wires are not installed by Quick Inspection Manifold handles and secured with zip ties.	<input type="checkbox"/>

COMMENTS

Section is Complete: _____



HYDRAULICS

	Check Off
Ensure that wire ties attaching Case Drain Line to others does not pinch off oil flow	
Identification tags have been attached to the front of the steel lines	
Steel hyd lines are not bent or kinked	
Hydraulic hoses meet minimum bend specifications - refer to diagram below	
All plastic line hold downs are tight and fastened with a lock nut	
Complete a visual inspection for hydraulic leaks.	
If leaks are detected loosen the fitting and retighten as per the procedure in the operators manual	

Section is Complete: _____

QDA Hydraulic System Valve

Check QDA valve operation (Quick Depth Adjust)	
Ensure that all QDA Depth adjustments are the same,	

Section is Complete: _____

HYDRAULIC HOSE MINIMUM BEND SPECIFICATIONS



High Flotation Option

All high floatation drills are frame leveled at the factory.

DO NOT adjust the pressure in HF tires unless the frame is not level or pressure does not match decal.

(Tire pressure as well as the RED shims (QDA units) are used for leveling frame)

Drills being shipped now should have a decal on the caster indicating the factory setting for that tire. (see Picture below) If missing, these can be ordered from factory.

	Check Off
Castors are in correct locations (arm toward hitch and tires with lower pressures on outer wings)	
Test function of ball valve and hydraulic cylinders	
Open steering cylinder ball valve raise openers using 410 control box steering cylinders should retract, lower openers steering cylinders should extend	
With openers down ,Check that initial pressure is correct for size of drill. Table 5.30 in operators manual or below.	
Check mainframe tire toe-in at center of tire. Front should be approximately 1" closer than the rear. (+/- 1/2") Picture on next page	
Check hammer clearance with openers lowered and hitch centered, should have 1/8" of clearance between hammer and stop on each side, or 1/4" in total. Remove bolt and adjust clevis if required.	

Section is Complete: _____

**Steering axle
cylinder pressure**

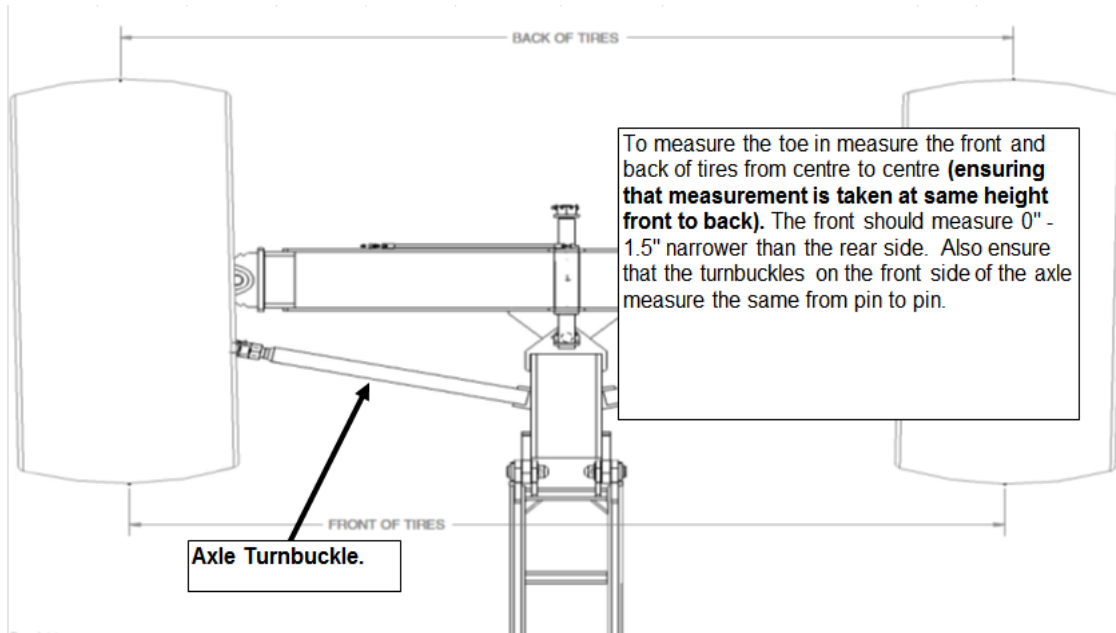
Table 5.30

3320-60	1800 psi
3320-66	1800 psi
3320-76	2050 psi
3320-86	2300 psi



	PSI
Record the HF front caster wheel pressures that are on the decals below	
Left outer wing	
Left inner wing	
Right inner wing	
Right outer wing	





To measure the toe in measure the front and back of tires from centre to centre (**ensuring that measurement is taken at same height front to back**). The front should measure 0" - 1.5" narrower than the rear side. Also ensure that the turnbuckles on the front side of the axle measure the same from pin to pin.

Axle Turnbuckle.

FINAL CHECK OFF

Hydraulics	CHECK OFF
Ensure there are no hydraulic leaks	
Test control box 3130-60 raise/lower and pressure functions. Attach box, tractor harness 3120-57-01, and power harness 3120-65-21 to drill frame in weatherproof packaging.	
Verify and test that the control box toggle pressure adjustment increases and decreases pressure in 50 psi ± 10 psi increments from 750 psi min to 2250 psi max.	
Ensure wing downpressure valve is set @ 200 psi when openers are engaged.	

Various	CHECK OFF
Any oil, dirt, footprints, etc on unit is cleaned up	
Air kit hoses do not kink, when unit is in transport position	
Primary manifolds, elbows and secondary hose do not interfere with trips or packers when unit is in transport position.	
The wing lock pins are installed	
0252-97 OPERATORS MANUAL - BLOCKAGE (if equipped)	
0250-59-10 AIR KIT INSTALLATION INSTRUCTIONS	
0256-10-02 OPERATORS MANUAL if equipped with MRB3	
0256-07 OPERATORS MANUAL 3320 PHD	

COMMENTS: _____

Sheet is Complete: _____