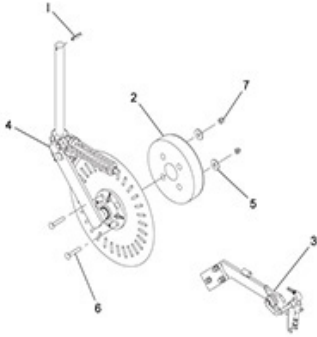


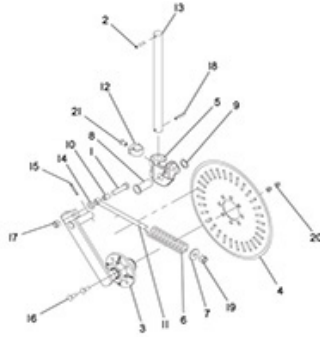
Nitrogen Toolbar

Ground Engaging

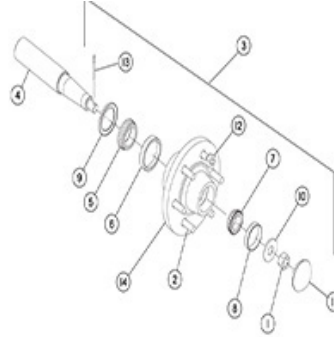
Drawing A



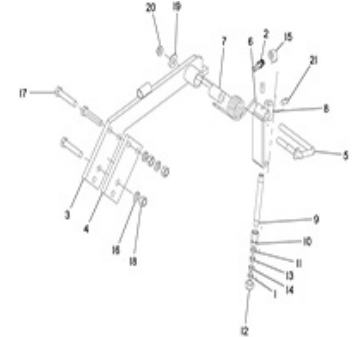
Drawing B



Drawing C



Drawing D

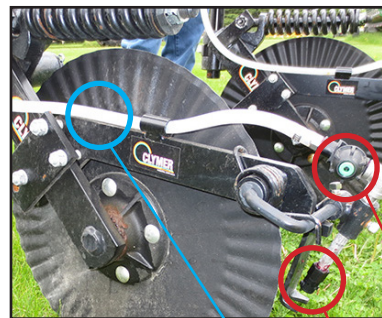


Oxbo Part Number	Description	Drawing Item Number	Clark Ag Part Number	Miller Part Number
299-N347W/N342	STANDARD COULTER ASSY	A4	N347W/N342	21.21440
299-N349-DS	GAUGE WHEEL	A6	N349-DS	21.20233
299-N342	20" FLUTED COULTER	B4	N342	21.22972
299-S233	SPRING	B6	S233	21.22974
299-N347-2	LOCKING COLLAR, 30 DEGREE	B12	N347-2	21.22980
50206	BEARING	C6,C8	W32	901181
50205	RACE	C5,C7	W38	901182
MLR2123103	SPRING - TORSION COULTER	D6	N/A	21.23103
MLR2123102	ROD - PIVOT COULTER HANGER	D5	N/A	21.23102

Service Tips

- Replace blades if > than 10% wear to original diameter (18 inches or less in diameter).
- The bearing should be repacked every other year. Inspect bearings and replace when extensive wear.
- Check the torsion coulters spring (MLR2123103) for worn contact point; breakage will occur at inopportune times.

Fertilizer Line Upgrade



Nitrogen Toolbar Plumbing Upgrade		
Quantity	Part Number	Description
15	4240N-F120V	8 PSI Check Valve
15	4200-0019	1/4 FNPT to Bayonet
8	4231N-B103S	Single Hose Barb to Bayonet
7	4231N-B103D	Double Hose Barb to Bayonet
20 ft	MLR0710570	3/4 in Hose

Fertilizer Line Upgrade continued

Situation:	Currently, the plumbing system incorporates the check valve at the top of the “leg.” When the system is shut off, the fertilizer in the leg line is lost. This causes a loss of product (\$) and potential crop damage.
Solution:	Replace and move check valve to the bottom of the coultter. Replace the stainless steel nozzle with the Hypro quick change poly system. Poly wears much better (improving application rate consistency), does not corrode (causing variation in application rates) and is easier to change (incorporate bayonet fitting) when new application rates are desired. See sprayer nozzle options below.

Sprayer Nozzle Options			
Disc #	Disc capacity	Cap & Seal	Color
30-DC-06	1 GPM @ 40 PSI	CAP04-2	Yellow
30-DC-07	1.5 GPM @ 40 PSI	CAP04-015	Green
30-DC-08	2.0 GPM @ 40 PSI	CAP04-08	White
30-DC-10	3.0 GPM @ 40 PSI	CAP04-15	Lime Green
30-DC-12	4.4 GPM @ 40 PSI	CAP04-03	Dark Blue

Notes:

Replace recommendation (Miller = 21.23107, replace with 4200-0019 - 3/8” PTC to bayonet).

See Conversion Chart for pressure and speed data.

Check Valve Options			
Hypro Part number	PSI	Shutoff speed	Color Code
4200-0010	4	Slow	Orange
4200-0020	8	Standard	Black
4200-0020V	8	Standard	Black
4200-0030	12	Quick	Yellow
4200-0030V	12	Quick	Yellow