ExactEmerge™ Component Wear Guide

JOHN DEERE

John Deere Seeding Group

Revised: 12 June 2020

Table of Contents

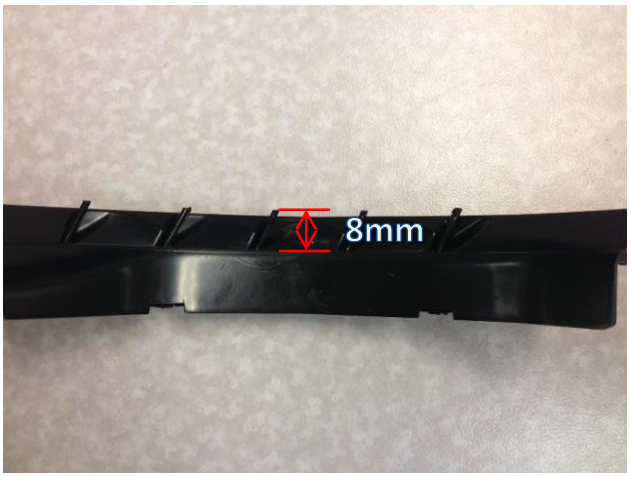
All suggested intervals are subject to planting conditions.

This guide is meant to aide in the diagnostics of ExactEmerge™ failures and is not meant to replace the Warranty Administration Manual (WAM).Always refer to the WAM for John Deere & Company warranty procedures and policies.

Service/Inspection	As needed	50 hours	200 hours	Pre-Season
Seed Bowl			X	
Meter Housing				x
Meter Wear Pads		x		
Seed Guide				x
Agitation/Smooth Strip			x	
Meter Housing Bearing	x			
Double Eliminator				x
Knockout Wheel			x	
Dome Seal	x			x
BrushBelt™ Conditioner			x	
BrushBelt™ Gearbox			x	x
BrushBelt™	x			x
Seed Sensor	x			x

Seed Bowl: Grooves along the seed bowl lip do not cause meter performance issues. **When to Replace:** Inspect every 100 hours or annually. Replace if wear from contact with meter housing and wear pads reaches seed holes.	
Meter Housing: Grooves in the housing do not cause performance or durability issues. **When to Replace:** Inspect annually. Timely replacement of meter wear pads helps to avoid housing wear.	
Metal Meter Wear Pads: Meter wear pads will experience wear under normal conditions. Proper replacement of wear pads helps prevent meter housing wear. **When to Replace:** Inspect every 50 hours. If wear pads are flush with housing, replacement is suggested to prevent housing wear. Wear pads may be moved from top to bottom, if non-uniform wear occurs, for longer life.	

Ceramic Meter Wear Pads: Meter wear pads will experience wear under normal conditions. Proper replacement of wear pads helps prevent meter housing wear. Ceramic Wear pads should be torqued to 2.9 NM (25 in*lbs) **When to Replace:** Inspect every 50 hours. There is a wear indicator on the pad. When the wear indicator is not visible it needs to be replaced. Wear pads may be moved from top to bottom, if non-uniform wear occurs, for longer life.	
Seed Guide: Evidence of wear from contact with the seed bowl does not cause performance issues. **When to Replace:** Inspect annually. If surface is chipped or damaged in area where seed transitions to BrushBelt™, replacement is suggested. Ensure that soft sided piece is not damaged or worn	
Corn Agitation Strip: Individual missing tines will **not** greatly affect component performance. **When to Replace:** Inspect every 100 hours or annually. If groups of consecutive tines are missing or extremities are peeled back, performance may be reduced and replacement is suggested. If attachment clip on back side of meter is broken or damaged, replace.	

Meter Bearing: Movement found in the bearing in relationship to the housing can affect performance. **When to Replace:** As needed. Inspect if you have noticed a change in bowl/hub tightness. If there has been measureable movement of the bearing within the housing, replacement is needed.	
Double Eliminator: Designed lengths of components <u>Inner DE:</u> 20.5 mm length from end of boss. <u>Outer DE:</u> 10.5mm **When to Replace:** Inspect annually **<u>Inner DE:</u>** If tines are worn down, measure < 17.5mm. **<u>Outer DE:</u>** If tines are worn down, measure < 8mm **Tines swept in direction of bowl rotation do not need replaced, this is as designed.**	Inner Double Eliminator 
Double Eliminator, continued: Replacement suggested when measurements are less than dimension shown. Measurement for the outer DE should be taken perpendicular to the base of the DE mounting to the tip of the tine, NOT the true length of tine. See photo.	Outer Double Eliminator 

Knockout Wheel: Knockout wheel tines should engage the seed holes fully **When to Replace:** Inspect 100 hours or annually. Replace if wheel tines are worn down, missing or do not engage seed bowl holes adequately. Verify that bearing surface is clean and tine head spins freely.	
Dome Seal: Verify seals are in operating condition prior to spring planting season. Verify that graphite has been applied to seed bowl and store properly per the Operator's Manual **When to Replace:** Inspect as needed. Check for unthreaded, torn, or flipped seals.	
BrushBelt™ Conditioner: **When to Replace:** Inspect every 100 hours. Replacement is suggested if conditioner has worn to the point where no contact is made with bristles.	

BrushBelt Gearbox:

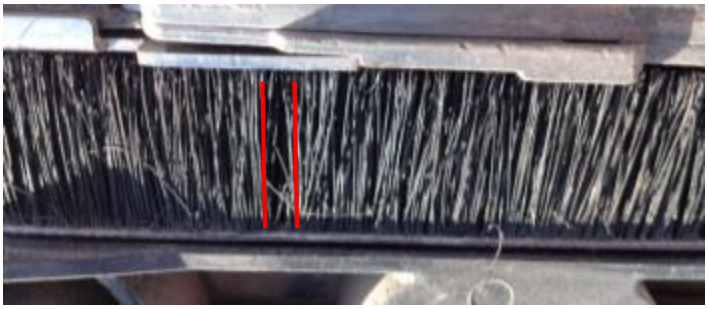
When to Replace: Inspect 100 hours or annually. With the gearbox removed from cartridge, rotate by hand checking for any noticeable “catching” to occur, suggesting a dry bearing.

BrushBelt:

Bent over bristles should not be a cause for concern or replacement. Running the brush will return bristles to proper position. This may be seen on machine arrival from the factory.

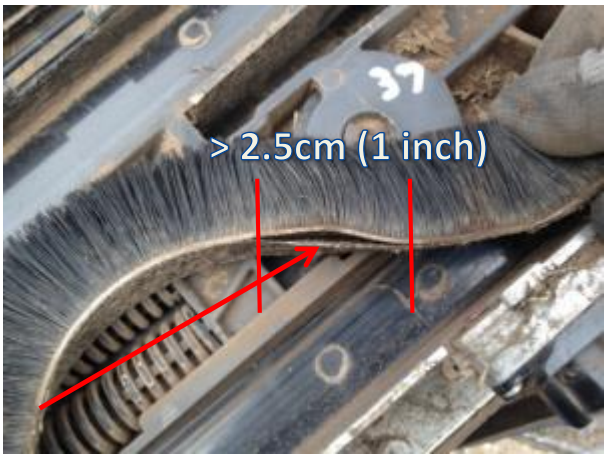
When to Replace: Inspect before and after season. Replace when large areas of bristles are missing, or if bristles have worn too short, causing performance degradation. Replace if brush backing has cracks, breaks, or is starting to unravel.

Continuous bristle loss of >1cm (0.4 inch)



Replace belt if one side has been worn as shown

Separation greater than 2.5cm (1 inch) may still operate but should be replaced if performance is affected



Replace if belt backing has separated 	Crack across brush strands may still operate, but should be replaced when time allows or performance degrades 
Seed Sensor: **When to Replace:** Inspect as needed and at end of season. Broken or damaged glass face. Cover can be replaced without complete sensor replacement.