

Tillage Parts Guide





Adjust depth and pressure in seconds with TruSet™

With advanced TruSet Tillage technology you can independently adjust settings for depth and pressure (while on the go) in just seconds. **That's up to 200 times faster than manual field adjustments.**

With just a few simple touches you can command TruSet to respond to changing field conditions. Go from lighter soil to highly compacted areas with $\frac{1}{10}$ -in. (2.5mm) accuracy. Also at your fingertips is **real-time data for actual tillage settings**, in addition to tillage pass documentation for later review and analysis.

Available for most newer John Deere implements and tractors—and compatible with competitive tractors—TruSet enhances your entire tillage operation by:

- Maximizing yield potential
- Increasing fuel efficiency
- Lowering operating costs
- Providing documentation and prescription functionality

Compatible equipment for TruSet

2230 Field Cultivator
2330 Mulch Finisher
2510H High-Speed Applicator
2620 and 2630 Series Disks
2720 Disk Ripper
2730 Combination Ripper
2623VT, 2633VT, and 2660VT Vertical Tillage

Go to <http://www.deere.com/en/tillage/truset/> to learn more.



BENEFITS OF TILLAGE

Dry soil sooner and more uniformly, especially high-residue or poorly drained fields. Tillage warms the soil earlier in the spring, so you may be able to plant sooner, use longer-season seed varieties, and harvest later. Crop dries in the field, not the bin.

Reduce insect and plant disease problems. The risk of insect damage increases as tillage decreases and more crop residue remains. The mixing action of tillage helps reduce the population of pests such as cutworms, slugs, and stalk borers.

Makes it easier to control soil fertility. By applying fertilizer, lime, and manure directly into the soil, you get more even distribution to the crop and lose less beneficial material. Incorporation also reduces volatilization and runoff of surface-applied commercial nitrogen and manure.

Low-cost way to manage weeds. Pre-plant incorporation of herbicides with a tillage pass lets you use less chemicals and, with consistent distribution, use them more effectively. Plus, tillage kills weeds and volunteer plants before the crop goes in.

Economical solution for soil compaction in the top 8 to 12 inches of soil. Even by eliminating all pre-plant tillage, compaction can still develop from trips over the field by combines, grain carts, fertilizer and manure applicators, trucks, and livestock.

Benefits the environment. A rough, residue-covered soil surface from fall tillage increases water absorption and reduces runoff and wind erosion. Mixing fertilizer, manure, lime, and herbicides into a residue-covered surface on your seedbed pass further reduces runoff into surface waters.

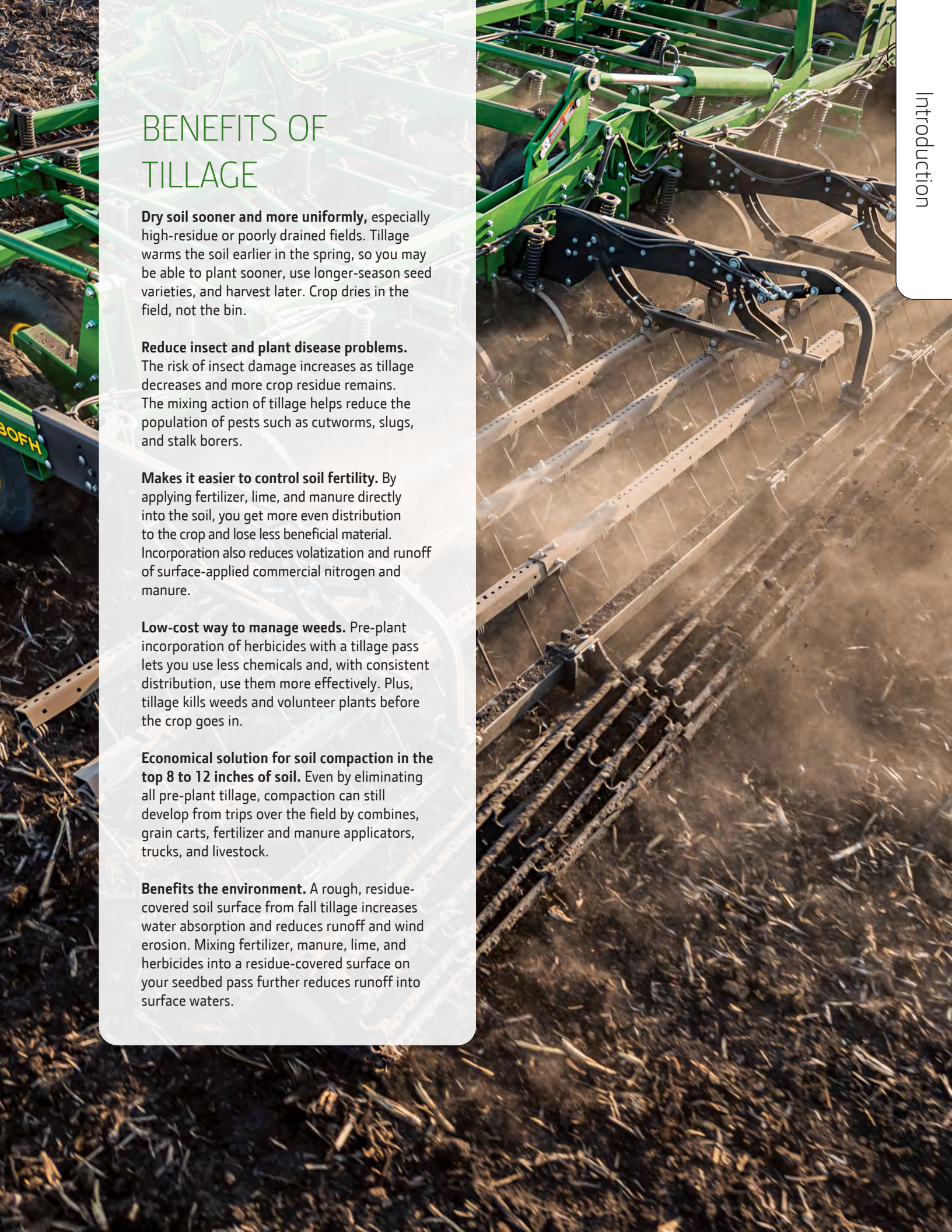


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Why tillage is important?

From rising input costs, to changing regulations, to tougher residue, today's producers are faced with many challenges when it comes to tillage. At the same time, higher yielding crops require healthy soil and tillage is still an indispensable tool to create an environment that promotes seed germination and root growth, controls moisture, weeds, and soil erosion. John Deere is a reliable source of proven tillage parts and attachments that allow producers to get the best out of every acre. The John Deere Tillage Parts Guide can help you get the necessary information on the right part whether you are managing compaction, sizing residue, controlling weeds or prepping for planting.

Tillage methods



Primary Tillage

Primary tillage is aggressive, deep tillage. It usually penetrates six inches deep or deeper, and uses implements such as a chisel plow, ripper, heavy disk, or mulch tiller. Its aim is to fracture or loosen soil and mix residue and fertilizer into the tilled layer.

Chisel Plow: 2400, 2410, and 2430, 240, 610

Disk: 637, 650, 2625, and 2635

Moldboard Plow: 3710, 975, and 995

Mulch Tiller: 714

Rippers: 512, 2100, 2700, 2720, 2730, 913 and 915



Secondary Tillage

Secondary tillage is shallow tillage — usually less than six inches. Its goal is to kill weeds, level soil, break clods, or incorporate herbicides and nutrients. Secondary tillage uses light disks, field cultivators, mulch finishers, crumblers, or similar tools. Secondary tillage is not necessarily preceded by primary tillage.

Disks: 425, 2620, 2623, 2630, 2623, 2680H

Field Cultivators: 2200, 2210 and 2230

Mulch Finisher: 2310 and 2330



Vertical Tillage

Vertical tillage is any type of deep tillage that doesn't create a horizontal layer to break up surface soil compaction, or smooth out areas in a field with shallow rills from water erosion or ruts and tire tracks from agricultural equipment.

Vertical tillage: 2623VT and 2633VT, 2660VT



Nutrient Application

Nutrient applicators are used to obtain maximum crop yield by managing nutrients in the soil. This is accomplished by utilizing tools that allow for efficient and precise delivery of dry and liquid fertilizers.

Nutrient Applicators: 2410C, 2430C, 2510C, 2510H, and 2510S



Seeding Tillage

Seeding tillage is shallow — usually three to four inches. Its major goals are to dislodge weed seeds, fracture soil, and provide a temporary cavity for seed placement. It is performed by air seeders and metered drills.

Air Hoe Drill: 1830 and 1835



Row Crop Tillage

Tilling the soil kills weeds, increases aeration, and improves water infiltration — all important for optimum plant growth. If crusting occurs before emergence, a rotary hoe is used to break up the crust and uproot small weeds.

Row Crop Cultivators: 856, 550 Mulch Master
Row Crop Ripper: 955

John Deere Weed Management Solutions

There is no one-size-fits-all weed control system. Crops, weather and soil conditions vary and you need the flexibility to handle them - and cost - effectively. While the use of sprayers has increased in popularity, tillage still represent an effective way to manage weeds. For this reason, John Deere offers a full product line of premium-quality tools with a variety of product features to give the ability to meet your weed management goals.

A row of green John Deere sweepers is parked on a gravel lot. The foreground shows a close-up of the front wheel and suspension of one of the machines. The background shows a long, light-colored building with a dark roof. The sky is clear and blue.

SWEEPS, SHOVELS &
ATTACHING HARDWARE

Sweeps, Shovels & Hardware

How to choose the right sweep for you

Wing Type Options



Conventional Sweep

“Good” - Classic John Deere offering, value offering for the smaller operator, fits John Deere tools and most competitive equipment.

- Nose angle set for soil penetration.



Tru-Width™ Wing

“Better” - For the medium sized grower, optimal scouring in stickier and wetter soil and shallow depth, maintain cutting width throughout life of sweeps.

- Low and Medium crown, the Tru-Width sweeps are ideal for shallow conditions such as air seeding or planting operations or when the soil is wet and sticky, as the improved scouring action leaves a smoother soil finish.
- 30%* increase in life over conventional sweeps.
- Wings are clipped for minimum soil side throw.
- Best choice if grower is limited in tractor horse power or prefers lower working speed.



High Productivity

“Best” - For the grower that needs to stay ahead of their planter or to cover more acres per day, the high productivity sweep is the choice for them. They perform best at speeds of 7 to 10 mph.

- Curved wing design improves wear life by 30%* over Tru-Width sweeps.
- Lower draft, potentially decreasing the cost.
- Low crown allows the sweep to leave a level finish, even at higher speeds.
- Sharp edge allows to cut effortlessly through weeds.

Sweeps: Good/Better/Best Options



	Conventional	Tru-Width™	High Productivity
Longest Wear Life	Good	Better	Best
Shape Retention	Good	Better	Best
Lower Draft	Good	Better	Best
Reduces Ridging		Better	Best
Sticky Wet Soil Conditions		Best	Better
Shallow Working Depths (<2")	Best	Best	Better
High Speed Capabilities (7-10 mph)			✓
Easy Perma-Loc™ Adapter		✓	✓
Bolt-on Adapter	✓	✓	✓
Extra Life Coating Option	✓	✓	✓

*Based on internal testing performed in 2012 and 2013.

Xtra-Life and Plus Sweeps

When it comes to increasing the working life of your sweeps, John Deere offers two wear resistant options. The Xtra-Life or “XLT” is a carbide powder coating that is fused to the wings and neck of the sweep. It is available for Conventional and Tru-Width sweeps. The XLT sweeps are ideal for sandy soil and weed management as they wear sharper.



Conventional sweep with XLT coating



Tru-Width sweep with XLT coating

The High Productivity Plus sweep has an iron based carbide powder that is laser cladded to the sweep wings. It is available on High Productivity sweeps only. The Plus sweeps represent the best choice for the grower who wants to cover a large amount of acres on a single set of sweeps.



High Productivity Plus Sweep

Perma-Loc™ Attaching System

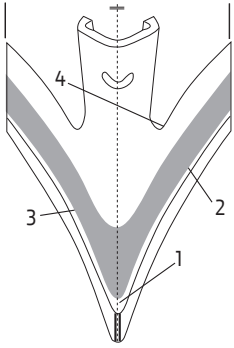
John Deere offers two attaching systems. For the operator with a smaller acreage where sweep replacement is not as frequent, John Deere offers the traditional bolt-on system.

However, if the grower is looking to increase productivity and uptime, the Perma-Loc™ quick attach system is the perfect choice. The Perma-Loc™ system is the most reliable quick attach system in the industry and allows the operator to change sweeps five times faster than the regular bolt-on system. Perma-Loc™ is based on a heavy-duty cast iron adapter and a locking spring. Available for 47- and 51-degree standards.



When to replace a sweep.

Sweep wear is the natural result of tillage. An excessively worn off sweep should be replaced as soon as possible as it would ultimately put your investment in time, resources, and inputs at risk of reduced returns. Replace your sweeps when you see one of the following wear characteristics.

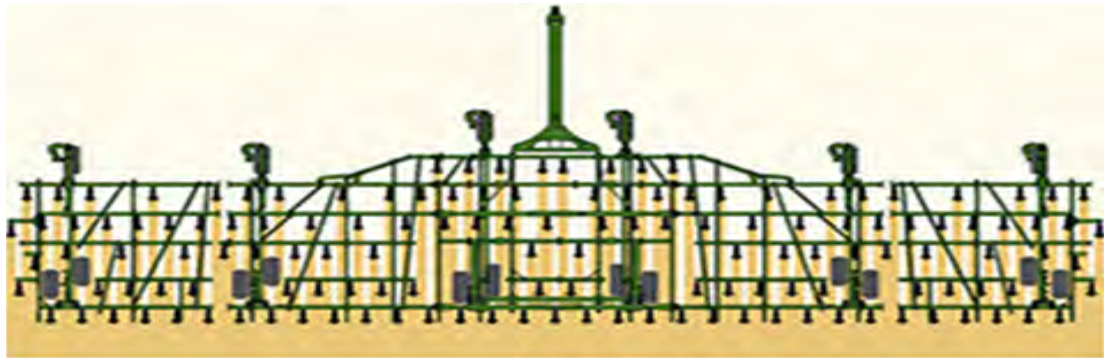


WEAR CHARACTERISTIC	RESULT
1. Rounded point.	<ul style="list-style-type: none"> • Reduces penetration performance. • Up force begins to occur, reducing tillage effectiveness and increasing equipment stress.
2. Cutting blade of wing reduced to 50-percent width of original wing	<ul style="list-style-type: none"> • Soil-mixing action is reduced and risk of wing breakage occurs.
3. Blunt edge on wing blade.	<ul style="list-style-type: none"> • Compacts soil at tillage surface and reduces seed germination and water infiltration activity.
4. Shank worn through (caused by shallow tillage where extremely crusty abrasive soils exist).	<ul style="list-style-type: none"> • The sweep breaks off the shank and is lost in the field.

Sizes

John Deere offers a wide range of sweep sizes to allow customers to match the right sweep with the right spacing of their tillage tool. Sweeps are oversized by one inch for proper overlap and completely eradicating weeds.

For example: if you have a customer that has 6" spacing they will need a 7" sweep for the entire ground to be worked.



Crown Height

Choose the crown height of your sweep based on the desired results.



Low-Crown Design

- Shallow crown and flat wings
- Excellent residue flow
- Minimal ridging
- Good soil conservation



Medium-Crown Design

- Higher profile with steeper angled wings
- More soil lifting and moving action
- Excellent down force for good penetration
- Positive scouring performance

Field cultivator sweeps

High productivity field cultivator sweeps

Features and benefits

“Best” - For the grower that needs to stay ahead of their planter or to cover more acres per day, the high productivity sweep is the choice for them. They perform best at speeds of 7 to 10 mph.

- Curved wing design improves wear life by 30%* over Tru-Width sweeps.
- Lower draft, potentially decreasing cost.
- Low crown allows the sweep to leave a level finish, even at higher speeds.
- Sharp edge allows to cut effortlessly through weeds.

High Productivity Sweeps

Part Number	Size	Thickness	Angle	Crown	Wing	Style
N331103	7-in.	1/4-in.	47-deg.	Low	Medium	Bolt
N331104	9-in.	1/4-in.	47-deg.	Low	Medium	Bolt
N331105	10-in.	1/4-in.	47-deg.	Low	Medium	Bolt
N331106	12-in.	1/4-in.	47-deg.	Low	Medium	Bolt



High Productivity Perma-Loc™ Sweeps

Part Number	Size	Thickness	Angle	Crown	Wing	Style
N331099	7-in.	1/4-in.	47-deg.	Low	Medium	Perma-Loc™
N331100	9-in.	1/4-in.	47-deg.	Low	Medium	Perma-Loc™
N331101	10-in.	1/4-in.	47-deg.	Low	Medium	Perma-Loc™
N331102	12-in.	1/4-in.	47-deg.	Low	Medium	Perma-Loc™



High Productivity Plus Perma-Loc™

Part Number	Size	Thickness	Angle	Crown	Wing	Style
KK36222	7	1/4-in.	47-deg.	Low	Medium	Perma-Loc™
KK36223	9	1/4-in.	47-deg.	Low	Medium	Perma-Loc™
KK36224	10	1/4-in.	47-deg.	Low	Medium	Perma-Loc™



Perma-Loc™ Adapters, Spring and Removal Tool

Part Description	Where Used	Part Number
Perma-Loc™ Adapters		
47-deg., Curved	Field Cultivators and Mulch Finishers with Curved Standards (Deere Applications)	N237614
47-deg., Flat	Field Cultivators and Mulch Finishers with Flat Standards (Competitive-DMI, CNH, Bourgault)	N330001
51-deg., Curved	Air Hoe Drills/Spoons	N237616
Perma-Loc™ Springs		
47-deg. Adapter Locking Spring	NA	N237620
51-deg. Adapter Locking Spring	NA	N237621
Perma-Loc™ Removal Tool		
Optional Tool Helps Make Perma-Loc™ Sweep Removal Quick and Easy	NA	N237623



*See hardware AN234540 and AN234961 on page 20

*Based on internal testing performed in 2012 and 2013.

Field cultivator sweeps

Tru-Width™ Sweeps



Examples of Tru-Width sweeps for secondary and crop care tillage. 47-deg. shank angle.



N182043 (12-in.)



Features and Benefits

- Unique, proven, Tru-Width design maintains cutting width throughout sweep life, which can extend 30%* beyond that of conventional sweeps.
- Ridged medium crown ensures long point life for ongoing consistent tillage action. It parts soil and improves mixing action, chemical incorporation, and weed eradication.
- Available in low and medium crown.
- Tru-Width wing design provides even seed distribution throughout the life of the sweep.
- Sweeps will also fit most competitive equipment.

Tru-Width Sweeps

Part Number	Size	Thickness	Angle	Crown	Wing	Style
N182039	7-in.	1/4-in.	47-deg.	Medium	Medium	Bolt
N182113	9-in.	1/4-in.	47-deg.	Low	Medium	Bolt
N182040	9-in.	1/4-in.	47-deg.	Medium	Medium	Bolt
N182114	10-in.	1/4-in.	47-deg.	Low	Medium	Bolt
N182041	10-in.	1/4-in.	47-deg.	Medium	Medium	Bolt
N182042	11-in.	1/4-in.	47-deg.	Medium	Medium	Bolt
N182043	12-in.	1/4-in.	47-deg.	Medium	Medium	Bolt
N182117	16-in.	1/4-in.	47-deg.	Low	Medium	Bolt

Tru-Width XLT Sweeps

Part Number	Size	Thickness	Angle	Crown	Wing	Style
N182039XLT	7-in.	1/4-in.	47-deg.	Medium	Medium	Bolt
N182040XLT	9-in.	1/4-in.	47-deg.	Medium	Medium	Bolt
N182041XLT	10-in.	1/4-in.	47-deg.	Medium	Medium	Bolt
N182042XLT	11-in.	1/4-in.	47-deg.	Medium	Medium	Bolt
N182043XLT	12-in.	1/4-in.	47-deg.	Medium	Medium	Bolt
N238333XLT	7-in.	1/4-in.	47-deg.	Medium	Medium	Perma-Loc™
N238334XLT	9-in.	1/4-in.	47-deg.	Medium	Medium	Perma-Loc™
N238335XLT	10-in.	1/4-in.	47-deg.	Medium	Medium	Perma-Loc™
N238336XLT	12-in.	1/4-in.	47-deg.	Medium	Medium	Perma-Loc™

Xtra-Life coating on wing, point and stem.

Perma-Loc™ Tru-Width™ Sweeps

Part Number	Size	Thickness	Angle	Crown	Wing	Style
N238333	7-in.	1/4-in.	47-deg.	Medium	Medium	Perma-Loc™
N238334	9-in.	1/4-in.	47-deg.	Medium	Medium	Perma-Loc™
N238335	10-in.	1/4-in.	47-deg.	Medium	Medium	Perma-Loc™
N238336	12-in.	1/4-in.	47-deg.	Medium	Medium	Perma-Loc™

Perma-Loc™ Tru-Width Spoons

Part Number	Size	Thickness	Angle	Crown	Wing	Style
N403769	2-in.	1/4-in.	47-deg.	Medium	Medium	Perma-Loc™
N238756	3-in.	1/4-in.	51-deg.	Medium	Medium	Perma-Loc™
N238757	4-in.	1/4-in.	51-deg.	Medium	Medium	Perma-Loc™

*Based on internal testing performed in 2012 and 2013.

Field cultivator sweeps

Conventional Sweeps

Features and benefits

- Nose angle is precisely set for excellent soil penetration.
- Wing ends are clipped for minimum soil side throw.
- 3/16-in. and 1/4-in. thickness options are dependent upon soil conditions and sweep applications.
- Provide an economical tillage value.
- Sweeps will fit most competitive equipment.



N188995 (12-in.)



XLT coated conventional sweep

Sweeps, Shovels & Hardware

Conventional Field Cultivator Sweeps

Part Number	Size	Thickness	Angle	Crown	Wing	Style
N130165	4 1/2-in.	3/16-in.	43-deg.	Medium	Medium	Bolt
N130166	7-in.	3/16-in.	43-deg.	Medium	Medium	Bolt
N130167	9-in.	3/16-in.	43-deg.	Medium	Medium	Bolt
N130168	10-in.	3/16-in.	43-deg.	Medium	Medium	Bolt
N973MN	12-in.	1/4-in.	43-deg.	Medium	Medium	Bolt
N188991	4 1/2-in.	1/4-in.	47-deg.	Medium	Medium	Bolt

Conventional Field Cultivator Sweeps - XLT Coated

Part Number	Size	Thickness	Angle	Crown	Wing	Style
N130166XLT	7-in.	3/16-in.	43-deg.	Medium	Medium	Bolt
N130167XLT	9-in.	3/16-in.	43-deg.	Medium	Medium	Bolt
N130168XLT	10-in.	3/16-in.	43-deg.	Medium	Medium	Bolt
N188991XLT	4 1/2-in.	1/4-in.	47-deg.	Medium	Medium	Bolt
N182039XLT	7-in.	1/4-in.	47-deg.	Medium	Medium	Bolt
N182040XLT	9-in.	1/4-in.	47-deg.	Medium	Medium	Bolt
N182041XLT	10-in.	1/4-in.	47-deg.	Medium	Medium	Bolt

Xtra-Life coating on wings, point and stem.

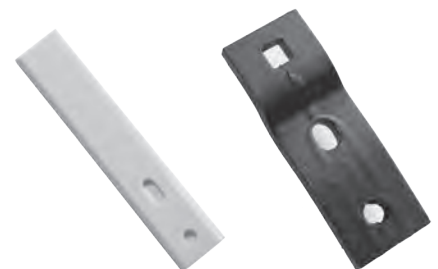
Hardware

Kit Part Number	Quantity	Part Number	Part Description
AN234100	50	10H1073	7/16-in. x 1 1/2-in. Bolt
	50	24M7043	.060-in. x 15/32-in. Washer
	50	14H813	7/16-in. Hex Nut
AN234101	50	N189527	No. 3 Repair Head Special Plow Bolt
	50	24H1305	.060-in. x 13/32-in. Washer
	50	14H812	3/8-in. Hex Nut

Miscellaneous products

Sweep extenders help the sweep reach deeper and break up compacted areas such as behind the tractor tires. Poly shank protectors help the soil flow off the shank protecting the metal and extending the life of the part.

Part Number	Size/Description
KK51728	Sweep Extender (3 holes, for field cultivators)
TY15990	1 3/4-in. x 9-in. Shank Protectors (poly)
TY15991	2-in. x 10-in. Shank Protectors (poly, for chisel plows)
BKK11115	Sweep extender kit for Perma-Loc sweeps. (includes 4 extenders, and necessary bolts, washers and nuts.)
BKK11116	Sweep extender kit (includes 4 extenders, and necessary bolts, washer and nuts.)



Chisel plow sweeps

Tru-Width™ Sweeps



Examples of Tru-Width sweeps for primary and seeding tillage. Medium crown, 51-deg. shank angle.



N182045 (10-in.)



N182038 (18-in.)

Sweeps, Shovels & Hardware

Features and Benefits

- Unique, proven, Tru-Width design maintains cutting width throughout sweep life, which can extend 30%* beyond that of conventional sweeps.
- Ridged medium crown ensures long point life for ongoing consistent tillage action. It parts soil and improves mixing action, chemical incorporation, and weed eradication.
- Wing angle is set on each type to optimize performance related to respective tillage/seeding practices.
- Tru-Width wing design provides even seed distribution throughout the life of the sweep.
- Excellent fit on other makes of tillage equipment for improved performance.
- Because of their unique wraparound design, Tru-Width sweeps provide even draft and maximum holding power.

Tru-Width Chisel Plow Sweeps

Part Number	Size	Thickness	Angle	Crown	Wing	Hole Spacing	Bolthole Size
N182044	8-in.	1/4-in.	51-deg.	Medium	Medium	2 1/4-in.	1/2-in.
N182045	10-in.	1/4-in.	51-deg.	Medium	Medium	2 1/4-in.	1/2-in.
N182046	12-in.	1/4-in.	51-deg.	Medium	Medium	2 1/4-in.	1/2-in.
N182035	12-in.	1/4-in.	51-deg.	Medium	Wide	2 1/4-in.	1/2-in.
N402442	12-in.	1/4-in.	51-deg.	Low	Wide	2 1/4-in.	1/2-in.
N182036	14-in.	1/4-in.	51-deg.	Medium	Wide	2 1/4-in.	1/2-in.
N402449	14-in.	1/4-in.	51-deg.	Low	Wide	2 1/4-in.	1/2-in.
43CP16TW	16-in.	1/4-in.	43-deg.	Medium	Wide	2 1/4-in.	1/2-in.
N182037	16-in.	1/4-in.	51-deg.	Medium	Wide	2 1/4-in.	1/2-in.
N402453	16-in.	1/4-in.	51-deg.	Low	Wide	2 1/4-in.	1/2-in.
43CP18TW	18-in.	1/4-in.	43-deg.	Medium	Wide	2 1/4-in.	1/2-in.
N182038	18-in.	1/4-in.	51-deg.	Medium	Wide	2 1/4-in.	1/2-in.
N402276	18-in.	1/4-in.	51-deg.	Low	Wide	2 1/4-in.	1/2-in.
N182111	20-in.	1/4-in.	51-deg.	Low	Wide	2 1/4-in.	1/2-in.
N232829	24-in.	1/4-in.	51-deg.	Medium	Wide	2 1/4-in.	1/2-in.

Tru-Width Chisel Plow Sweeps - XLT Coating

Part Number	Size	Thickness	Angle	Crown	Wing	Hole Spacing	Bolthole Size
N182035XLT*	12-in.	1/4-in.	51-deg.	Medium	Wide	2 1/4-in.	1/2-in.
N182036XLT*	14-in.	1/4-in.	51-deg.	Medium	Wide	2 1/4-in.	1/2-in.
N182037XLT*	16-in.	1/4-in.	51-deg.	Medium	Wide	2 1/4-in.	1/2-in.
N182038XLT*	18-in.	1/4-in.	51-deg.	Medium	Wide	2 1/4-in.	1/2-in.
N233903*	24-in.	1/4-in.	51-deg.	Medium	Wide	2 1/4-in.	1/2-in.

*XLT=Xtra-Life coating on wings, point, and stem



Hardware

Kit Part Number	Part Number	Quantity	Part Description
AN234104	10H1236	50	1/2-in. x 2 1/4-in. Bolt
	12H301	50	1/2-in. Washer
	14H960	50	1/2-in. Heavy Hex
AN234105	10H1237	50	1/2-in. x 2 1/2-in. Bolt
	12H301	50	1/2-in. Washer
	14H960	50	1/2-in. Heavy Hex

*Based on internal testing performed in 2012 and 2013.

Chisel plow sweeps

Conventional Sweeps

Features and Benefits

- Nose angle is precisely set for excellent soil penetration.
- Both low and medium-crown wing designs provide excellent soil mixing and residue retention.
- 3/16-in.- and 1/4-in. thickness options are dependent upon soil conditions and sweep applications.
- Provide an economical tillage value.
- Sweeps will fit most competitive equipment utilizing the characteristics in the charts.

Conventional Chisel Plow Sweeps

Part Number	Size	Thickness	Angle	Crown	Wing	Hole Spacing	Bolthole Size
N130188	6 1/2-in.	1/4-in.	51-deg.	Medium	Medium	2 1/4-in.	1/2-in.
N182044	8-in.	1/4-in.	51-deg.	Medium	Medium	2 1/4-in.	1/2-in.
N182045	10-in.	1/4-in.	51-deg.	Medium	Medium	2 1/4-in.	1/2-in.
N182046	12-in.	1/4-in.	51-deg.	Medium	Medium	2 1/4-in.	1/2-in.
47CP014	14-in.	1/4-in.	47-deg.	Medium	Medium	2 1/4-in.	1/2-in.
N130182	14-in.	1/4-in.	51-deg.	Medium	Medium	2 1/4-in.	1/2-in.
47CP016	16-in.	1/4-in.	47-deg.	Medium	Medium	2 1/4-in.	1/2-in.
N130177	16-in.	1/4-in.	51-deg.	Low	Narrow	2 1/4-in.	1/2-in.
N130183	16-in.	1/4-in.	51-deg.	Medium	Medium	2 1/4-in.	1/2-in.
47CP018	18-in.	1/4-in.	47-deg.	Medium	Medium	2 1/4-in.	1/2-in.
N130178	18-in.	1/4-in.	51-deg.	Low	Narrow	2 1/4-in.	1/2-in.
N130184	18-in.	1/4-in.	51-deg.	Medium	Medium	2 1/4-in.	1/2-in.
N130185	20-in.	1/4-in.	51-deg.	Medium	Medium	2 1/4-in.	1/2-in.
N188290	24-in.	1/4-in.	51-deg.	Low	Medium	2 1/4-in.	1/2-in.



N130185 (20-in.)



N130179 (8-in.)

Conventional Chisel Plow Sweeps - XLT Coating

Part Number	Size	Thickness	Angle	Crown	Wing	Hole Spacing	Bolthole Size
N130188XLT*	6 1/2-in.	1/4-in.	51-deg.	Medium	Medium	2 1/4-in.	1/2-in.
N130182XLT*	14-in.	1/4-in.	51-deg.	Medium	Medium	2 1/4-in.	1/2-in.
N130183XLT*	16-in.	1/4-in.	51-deg.	Medium	Medium	2 1/4-in.	1/2-in.
N130178XLT*	18-in.	1/4-in.	51-deg.	Low	Narrow	2 1/4-in.	1/2-in.
N130184XLT*	18-in.	1/4-in.	51-deg.	Medium	Medium	2 1/4-in.	1/2-in.

*XLT=Xtra-Life coating on wings, point, and stem



Examples of medium crown, 51-deg.-shank-angle conventional-wing sweeps for primary and seeding tillage.

Hardware

Kit Part Number	Part Number	Quantity	Part Description
AN234104	10H1236	50	1/2-in. x 2 1/4-in. Bolt
	12H301	50	1/2-in. Washer
	14H960	50	1/2-in. Heavy Hex
AN234105	10H1237	50	1/2-in. x 2 1/2-in. Bolt
	12H301	50	1/2-in. Washer
	14H960	50	1/2-in. Heavy Hex

Chisel plow sweeps

Heel Sweeps



Features and Benefits

- Heat-treated for extra strength and durability.
- By using with chisel points, operators are able to chisel and cultivate at the same time, optimizing soil conditions for their crops.

Heel Sweeps

Part Number	Size	Thickness	Stem Angle	Crown	Hole Spacing	Bolthole Size
N237718	16-in.	1/4-in.	NA	NA	2 1/4-in.	1/2-in.
N237719	18-in.	1/4-in.	NA	NA	2 1/4-in.	1/2-in.

Chisel Points for Heel Sweeps, Double Point

Part Number	Size	Thickness
N130189	2-in. x 14-in.	5/8-in.
N130190	2-in. x 16-in.	5/8-in.
N130193	4-in. x 14 1/2-in.	3/8-in.

Single-Point Chrome Cap

Part Number	Size	Thickness
N237890	2-in. x 12-in.	7/8-in.
AN231796	2-in. x 12-in.	7/8-in.

Heavy-Duty Double Point

Part Number	Size	Thickness
N237910	2-in. x 16-in.	7/8-in.

Hardware

Kit Part Number	Part Number	Quantity	Part Description
For-N130189, N130190, N130193 and AN231796 without heel sweep			
AN234106	10H1238	50	1/2-in. x 2 3/4-in. Bolt
	14H960	50	1/2-in. Heavy Hex
	12H301	50	1/2-in. Washer
For-AN231796 with heel sweep, N237890 and N237910			
No kit order individual parts	N234753	50	3/8-in. x 1 3/4-in. Grade 8 Bolt
	10H1239	50	1/2-in. x 3-in. Hex
	24H1305	50	13/32-in. x 13/16-in. x 1/16-in. Washer



Chisel plow parts

Fits Brillion, Brinkley, Bush Hog, Case, Glencoe, Hiniker, John Deere, KMC, Krause, Landoll, Noble, Taylor, and Wil-Rich (three-piece assembly parts).

Chisel Parts

Part Number	Description	OEM Number
A — Single-piece twisted slash point		
N237720	1/2- x 4- x 26-in. Twisted Slash Point (RH)	
N237721	1/2- x 4- x 26-in. Twisted Slash Pointt (LH)	
N237722	1/2- x 4- x 26-in. Twisted Slash Point, Hard Faced (RH)	
N237723	1/2- x 4- x 26-in. Twisted Slash Point, Hard Faced (LH)	
B — Points for moldboard twist assembly		
N237724	1/2- x 4-in. Soil-Saver Point (RH)	6135
N237725	1/2- x 4-in. Soil-Saver Point (LH)	6167
N237726	1/2- x 4-in. Soil-Saver Point, Hard Faced (RH)	6136
N237727	1/2- x 4-in. Soil-Saver Point, Hard Faced (LH)	6168
C — Moldboards for moldboard assembly		
N237728	1/2- x 4- x 18-in. Soil-Saver Moldboard (RH)	6137
N237729	1/2- x 4- x 18-in. Soil-Saver Moldboard (LH)	6138



A—Single-piece twisted slash point (N237720)



B—Points for moldboard assembly (N237724)



C—Moldboards for moldboard assembly (N237729)

Hardware for Points, Moldboards, and Twist Assemblies

Part Number	Description	OEM umber
PMCH1483	1/2-in. Clipped Head Bolt 1 1/4" length	
12H301	1/2-in. Hex Nut	

Twisted Shovels

Features and Benefits

- Offer versatility for your primary tillage operation.
- 24-in. concave shovel generates “soil ribbons” that tackdown residue and reduce erosion damage.
- 22-in. flat shovel provide excellent soil/trash mixing and compaction control.

Concave Twisted Shovels

Part Number	Size	Material Thickness	Weight (lb.)
N181913	3-in. x 24-in. LH	1/2-in.	9.00
N181912	3-in. x 24-in. RH	1/2-in.	9.00
N181907	4-in. x 24-in. LH	1/2-in.	11.00
N181906	4-in. x 24-in. RH	1/2-in.	11.00



Flat Twisted Shovels

Part Number	Size	Material Thickness	Weight (lb.)
N130195	3-in. x 22-in. LH	3/8-in.	6.00
N130194	3-in. x 22-in. RH	3/8-in.	6.00
N182107	3-in. x 22-in. LH	1/2-in.	8.00
N182108	3-in. x 22-in. RH	1/2-in.	8.00
N182109	4-in. x 22-in. LH	1/2-in.	10.40
N182110	4-in. x 22-in. RH	1/2-in.	10.40



Chisel plow parts

Seeding Shovels and Weeding Knives



Seeding Shovels

Part Number	Size/Description	Material Thickness	Weight (lb.)
B910M	1 ³ / ₁₆ -in. Double-Point Shovel	³ / ₁₆ -in.	0.70
K144M	1 ³ / ₄ -in. Double-Point Shovel	³ / ₁₆ -in.	0.95
N182058	1 ⁵ / ₈ -in. x 8-in. Double-Point Shovel	¹ / ₄ -in.	1.00
N506M	1 ³ / ₄ -in. x 10-in. Double-Point Shovel (43-deg.)	⁵ / ₁₆ -in.	1.13
N188990	1 ³ / ₄ -in. x 10-in. Double-Point Shovel (47-deg.)	⁵ / ₁₆ -in.	1.13
N182029	2-in. x 10-in. Double-Point Shovel (55-deg.)	⁵ / ₁₆ -in.	1.59
M15012	2 ¹ / ₄ -in. Single-Point Wraparound Shovel	¹ / ₄ -in.	1.57
M17050	4-in. Single-Point Wraparound Shovel	¹ / ₄ -in.	2.25

Weeding Knives

Part Number	Size	Weight (lb.)
A38642	26-in. LH	6.90
A38641	26-in. RH	6.90

Row-Crop Cultivator Sweeps

Tru-Width™ Sweeps



Features and Benefits

- Unique, proven, Tru-Width design maintains cutting width throughout sweep life, which can extend 30 percent* beyond that of conventional sweeps.
- Ridged medium crown ensures long point life for ongoing consistent tillage action. It parts soil and improves mixing action, chemical incorporation, and weed eradication.
- Wing angle is set on each type to optimize performance related to respective tillage/seeding practices.
- Because of their unique wraparound design, Tru-Width sweeps provide even draft and maximum holding power.

Tru-Width Row-Crop Cultivator Sweeps

Part Number	Size	Thickness	Stem Angle	Crown	Hole Spacing	Bolthole Size
N232829	24-in.	¹ / ₄ -in.	51-deg.	Medium	2 ¹ / ₄ -in.	⁷ / ₁₆ -in.
N233903*	24-in. XLT	¹ / ₄ -in.	51-deg.	Medium	2 ¹ / ₄ -in.	⁷ / ₁₆ -in.

XLT=Xtra-Life coating on wings, point, and stem

Hardware

Kit Part Number	Part Number	Quantity	Part Description
AN234095	N181782	50	⁷ / ₁₆ -in. x 1 ³ / ₄ -in. Bolt
	12H293	50	⁷ / ₁₆ -in. Lock Washer
	14H813	50	⁷ / ₁₆ -in. Hex Nut
AN234104	10H1236	50	¹ / ₂ -in. x 2 ¹ / ₄ -in. Bolt
	12H301	50	¹ / ₂ -in. Washer
	14H960	50	¹ / ₂ -in. Heavy Hex Nut

*Based on internal testing performed in 2012 and 2013.

Row-Crop Cultivator Sweeps

Conventional Row-Crop Cultivator Sweeps

Features and Benefits

- Nose angle is precisely set for excellent soil penetration.
- Both low and medium-crown wing designs provide excellent soil mixing and residue retention.
- Wing ends are clipped for minimum soil side throw.
- 3/16-in. and 1/4-in. thickness options are dependent upon soil conditions and sweep applications.
- Provide an economical tillage value.
- Available for many all-makes applications.



Sweeps, Shovels & Hardware

Conventional Row-Crop Cultivator Sweeps

Part Number	Size	Thickness	Angle	Crown	Wing	Hole Spacing	Bolthole Size
N239040	4-in.	3/16-in.	55-deg.	Medium	Narrow	2-in.	7/16-in.
N239041	6-in.	3/16-in.	55-deg.	Medium	Narrow	2-in.	7/16-in.
N239042	8-in.	3/16-in.	55-deg.	Medium	Narrow	2-in.	7/16-in.
N239043	10-in.	3/16-in.	55-deg.	Medium	Narrow	2-in.	7/16-in.
N239033	12-in.	1/4-in.	55-deg.	Medium	Medium	2-in.	7/16-in.
N239034	14-in.	1/4-in.	55-deg.	Medium	Medium	2-in.	7/16-in.
N239035	16-in.	1/4-in.	55-deg.	Medium	Medium	2-in.	7/16-in.

Conventional Row-Crop Cultivator Sweeps - XLT Coating

Part Number	Size	Thickness	Angle	Crown	Wing	Hole Spacing	Bolthole Size
N239041XLT*	6-in.	3/16-in.	55-deg.	Medium	Narrow	2-in.	7/16-in.
N239042XLT*	8-in.	3/16-in.	55-deg.	Medium	Narrow	2-in.	7/16-in.
N239043XLT*	10-in.	3/16-in.	55-deg.	Medium	Narrow	2-in.	7/16-in.
N239033XLT*	12-in.	1/4-in.	55-deg.	Medium	Medium	2-in.	7/16-in.
N239034XLT*	14-in.	1/4-in.	55-deg.	Medium	Medium	2-in.	7/16-in.
N239035XLT*	16-in.	1/4-in.	55-deg.	Medium	Medium	2-in.	7/16-in.

*XLT=Xtra-Life coating on wings, point, and stem



3/4 Conventional Row-Crop Cultivator Sweeps

Part Number	Description	Size	Thickness	Angle	Crown	Wing	Hole Spacing	Bolthole Size
N239036	3/4 Wing — RH	5-in.	3/16-in.	55-deg.	Medium	Narrow	2-in.	7/16-in.
N239037	3/4 Wing — LH	5-in.	3/16-in.	55-deg.	Medium	Narrow	2-in.	7/16-in.
N239038	3/4 Wing — RH	6 1/2-in.	3/16-in.	55-deg.	Medium	Narrow	2-in.	7/16-in.
N239039	3/4 Wing — LH	6 1/2-in.	3/16-in.	55-deg.	Medium	Narrow	2-in.	7/16-in.
N187688	3/4 Wing — RH	7 3/4-in.	3/16-in.	55-deg.	Medium	Narrow	2-in.	7/16-in.
N187689	3/4 Wing — LH	7 3/4-in.	3/16-in.	55-deg.	Medium	Narrow	2-in.	7/16-in.



Hardware

Kit Part Number	Quantity	Part Number	Part Description
AN181518	50	09H1761	7/16-in. x 2 1/2-in. Bolt
	50	24M7180	.105-in. x 1 1/2-in. Washer
	50	14H813	7/16-in. Hex Nut
AN181520	50	09H1765	7/16-in. x 1 1/2-in. Bolt
	50	24H1327	.105-in. x 1 5/32-in. Washer
	50	14H813	7/16-in. Hex Nut
AN181521	50	03H1528	5/8-in. x 1 1/2-in. Bolt
	50	24H1139	.105-in. x 1 1/16-in. Washer
	50	14H760	5/8-in. Hex Nut

Row-Crop Cultivator Sweeps

S-Tine Sweeps and Shovels for Row-Crop Cultivators



Features and Benefits

- Built with unique wraparound design, leading to a tight square shank-to-standard fit.
- Produces even draft and maximum holding power.

S-Tine Sweeps and Shovels for Row-Crop Cultivators

Part Number	Size	Thickness	Angle	Crown	Hole Spacing	Bolthole Size
N182058	1 ⁵ / ₈ -in. x 8-in.	1/4-in.	43-deg.	Medium	NA	3/8-in.
AN232008	1 ⁵ / ₈ -in. x 8-in. Kit	1/4-in.	43-deg.	Medium	NA	3/8-in.
N182059	2 ³ / ₄ -in.	1/4-in.	43-deg.	Medium	NA	3/8-in.
AN232009	2 ³ / ₄ -in. Kit	1/4-in.	43-deg.	Medium	NA	3/8-in.
N182059XLT*	2 ³ / ₄ -in.	1/4-in.	43-deg.	Medium	NA	3/8-in.
N182060	4-in.	1/4-in.	43-deg.	Medium	NA	3/8-in.
AN232010	4-in. Kit	1/4-in.	43-deg.	Medium	NA	3/8-in.
N182060XLT*	4-in.	1/4-in.	43-deg.	Medium	NA	3/8-in.
N182076	4-in. V-Pattern	1/4-in.	43-deg.	Medium	NA	3/8-in.
AN232011	4-in. V-Pattern Kit	1/4-in.	43-deg.	Medium	NA	3/8-in.
N182076XLT*	4-in. V-Pattern	1/4-in.	43-deg.	Medium	NA	3/8-in.
N182061	7-in.	1/4-in.	43-deg.	Medium	NA	3/8-in.
N182061XLT*	7-in.	1/4-in.	43-deg.	Medium	NA	3/8-in.
N182081	9-in.	1/4-in.	43-deg.	Medium	NA	3/8-in.

*XLT=Xtra-Life coating on wings, point, and stem

Hardware

Kit Part Number	Part Number	Quantity	Part Description
AN232013	N234753	50	3/8-in. x 1 ³ / ₄ -in. Bolt
	24H1139	50	.060-in. x 1 ³ / ₃₂ -in. Washer
	14H931	50	3/8-in. Hex Nut

Rotary Hoe Wheel



Sixteen curved tines on each wheel explode soil crust and uproot weeds. These wheels can also fit Yetter, M&W, and Hiniker rotary hoes.

- Triple-sealed bearing for long life.
- Spoon-formed tine for excellent aeration and weed eradication.
- Accurately peened rivets strengthen wheel construction for long life.

Rotary Hoe Wheel

Part Number	Description	Weight (lb.)	Diameter (in.)
AN142664	Rotary Hoe Wheel	12.80	21

Row-Crop Cultivator Sweeps

Precision Plus Fin and Precision Plus Narrow-Wing S-Tine Sweeps

Features and Benefits

- Greatly reduces the likelihood of shoe breakage, because the shoe slotted, tang-inserted, and double welded (top and bottom).
- The sweeps reduce twisting and have an extended product life.



Sweeps, Shovels & Hardware

Precision Plus Fin and Precision Plus Narrow-Wing S-Tine Sweeps

Part Number	Size	Thickness
AN231772	8-in.	3/16-in.
AN231773	10-in.	3/16-in.
AN231774	12-in.	3/16-in.
AN231775	14-in.	3/16-in.

Hardware

Part Number	Part	Part Description
03H1746	Bolt	1/2-in. x 1 1/4-in. Bolt
14H1040	Nut	1/2-in. Hex Nut

Precision Plus Narrow-Wing Sweeps

Part Number	Size	Thickness
N182082	8-in.	3/16-in.
N182083	10-in.	3/16-in.
N182084	12-in.	1/4-in.
N182085	14-in.	1/4-in.



Hardware

Kit Part Number	Part Number	Quantity	Part Description
AN232013	N234753	50	3/8-in. x 1 3/4-in. Grade 8 Bolt
	24H1305	50	.060-in. x 1 3/32-in. Washer
	14H931	50	3/8-in. Hex Nut

Attaching Hardware Information

Sweeps, Shovels & Hardware

Part Number	Hardware Kit Description	Kit Breakdown					
		Bolt	Description	Nut	Description	Washer	Description
AN181518	Sweep Bolts (50 – 7/16 x 2 1/2)	09H1761	7/16-in. x 2 1/2-in.	14H813	7/16-in. Hex	24M7180	.105-in. x 1 1/2-in.
	Part no longer a kit — order individual pieces	03H1857	5/8-in. x 2 3/4-in.	14H1039	5/8-in. Hex	24H1192	.105-in. x 1 1/16-in.
AN181520	Sweep Bolts (50 – 7/16 x 1 1/2)	09H1765	7/16-in. x 1 1/2-in.	14H813	7/16-in. Hex	24H1327	.105-in. x 1 5/32-in.
AN181521	Sweep Bolts (50 – 5/8 x 1 1/2)	03H1528	5/8-in. x 1 1/2-in.	14H760	5/8-in. Hex	24H1139	.105-in. x 1 1/16-in.
AN232013	Sweep Bolts (50 – 3/8 x 1 3/4)	N234753	3/8-in. x 1 3/4-in.	14H931	3/8-in. Hex	24H1305	.060-in. x 1 13/32-in.
AN234095	Sweep Bolts (50 – 7/16 x 1 3/4)	N181782	7/16-in. x 1 3/4-in.	14H813	7/16-in. Hex	24H1327	.105-in. x 1 5/32-in.
AN234096	Sweep Bolts (50 – 7/16 x 2 1/4)	10H1160	7/16-in. x 2 1/4-in.	14H813	7/16-in. Hex	24H1327	.105-in. x 1 5/32-in.
	Part no longer a kit — order individual pieces	N181784	7/16-in. x 2 1/4-in.	14H813	7/16-in. Hex	24H1327	.105-in. x 1 5/32-in.
AN234098	Sweep Bolts — Special Head	N181783	7/16-in. x 2-in.	14H813	7/16-in. Hex	24H1327	.105-in. x 1 5/32-in.
AN234099	Sweep Bolts (50 – 3/8 x 1 1/4)	10H1027	3/8-in. x 1 1/4-in.	14H812	3/8-in. Hex	24H1305	.060-in. x 1 13/32-in.
AN234100	Sweep Bolts (50 – 7/16 x 1 1/2)	10H1073	7/16-in. x 1 1/2-in.	14H813	7/16-in. Hex	24M7043	.060-in. x 1 5/32-in.
AN234101	Sweep Bolts (50 – Special Head)	N189527	No. 3 Head	14H812	3/8-in. Hex	24H1305	.060-in. x 1 13/32-in.
AN234102	Sweep Bolts (50 – 7/16 x 1 3/4)	10H1158	7/16-in. x 1 3/4-in.	14H813	7/16-in. Hex	24M7043	.060-in. x 1 5/32-in.
AN234103	Sweep Bolts (50 – 1/2 x 2) R.O.	10H1246	1/2-in. x 2-in.	14H960	1/2-in. Heavy Hex	12H301	1/2-in. Lock Washer
AN234104	Sweep Bolts (50 – 1/2 x 2 1/4)	10H1236	1/2-in. x 2 1/4-in.	14H960	1/2-in. Heavy Hex	12H301	1/2-in. Lock Washer
AN234105	Sweep Bolts (50 – 1/2 x 2 1/2) R.O.	10H1237	1/2-in. x 2 1/2-in.	14H960	1/2-in. Heavy Hex	12H301	1/2-in. Lock Washer
AN234106	Sweep Bolts (50 – 1/2 x 2 3/4) R.O.	10H1238	1/2-in. x 2 3/4-in.	14H960	1/2-in. Heavy Hex	12H301	1/2-in. lock washer
AN234168	Sweep Bolts (50 – 7/16 x 2)	10H1159	7/16-in. x 2-in.	14H813	7/16-in. Hex	24H1327	.105-in. x 1 5/32-in.
AN234540	Perma-Loc™ Hardware Bundle (50 PCS) (FC)	10H1159	7/16-in. x 2-in.	14H813	7/16-in. Hex	24H1327	.105-in. x 1 5/32-in.
AN234961	Perma-Loc™ Hardware Bundle (50 PCS) (200# Standard FC)	10H1160	7/16-in. x 2 1/4-in.	14H813	7/16-in. Hex	24H1327	.105-in. x 1 5/32-in.

Part Number	Hardware Kit Description	Tru-Width™ FC	Conventional Wing FC	Perma-Loc™ FC	Tru-Width™ CP	Conventional Wing CP	Conventional Row-Crop FC	Tru-Width™ Row-Crop FC	S-Tine	Precision Plus
Sweep Bolts										
AN181518	50 – 7/16 x 2 1/2						x			
AN181520	50 – 7/16 x 1 1/2						x			
AN181521	50 – 5/8 x 1 1/2									
AN232013	50 – 3/8 x 1 3/4								x	x
AN234095	50 – 7/16 x 1 3/4							x		
AN234096	50 – 7/16 x 2 1/4									
AN234098	Special Head									
AN234099	50 – 3/8 x 1 1/4									
AN234100	50 – 7/16 x 1 1/2	x	x							
AN234101	50 – Special Head	x	x							
AN234102	50 – 7/16 x 1 3/4									
AN234103	50 – 1/2 x 2 R.O.									
AN234104	50 – 1/2 x 2 1/4				x	x				
AN234105	50 – 1/2 x 2 1/2 R.O.				x	x				
AN234106	50 – 1/2 x 2 3/4 R.O.									
AN234168	50 – 7/16 x 2									
AN234540	50 PCS — FC			x						
AN234961	50 PCS 200# Standard FC			x						

RIPPER POINTS



Ripper Points

Ripper Points

LaserRip™ II Ripper Points

Features and Benefits

- High-Performance for those operating in difficult conditions.
- Critical wear areas are thicker for increased wear life.
- Exclusive cast material ensures resistance to rock chipping.
- Patented enlarged mounting holes for bolt head protection and retention.
- Fits John Deere and many competitive machines with 1 1/4-in parabolic standards.

LaserRip II Ripper Points

LaserRip II Points to fit 1 1/4-in. Standard for John Deere (Front mounting hole)

Part Number	Size	Applications	Standard
KK28539	Wingless	Deere	1 1/4-in. Parabolic
KK28540	5-in.	Deere	1 1/4-in. Parabolic
KK28541	7-in.	Deere	1 1/4-in. Parabolic
KK28542	10-in.	Deere	1 1/4-in. Parabolic

LaserRip II Points to fit 1 1/4-in. Standard for CNH/DMI/Brillion (Rear mounting hole)

Seamlessly install John Deere LaserRip II points on Kuhn/Krause and Case IH machines with wear shins. The new design does not require the operator to modify the points at installation or remove the wear shin.

	Size	Application	Standard
N401043	Wingless	CNH/DMI/Brillion	1 1/4-in. Parabolic
KK30374	7-in.	CNH/DMI/Brillion	1 1/4-in. Parabolic
KK31538	10-in.	CNH/DMI/Brillion	1 1/4-in. Parabolic



LaserRip Ripper Points for All-Makes Applications

Features and Benefits

- Exclusive cast material ensures high resistance to rock chipping.
- Critical wear areas thicker for increased wear life.

Regular-Duty LaserRip Ripper Points

Part Number	Size	Applications	Standard
N237223	2 3/4-in.	Sunflower	1 1/4-in. Parabolic
N237224	7-in.	Sunflower	1 1/4-in. Parabolic
N236412	2 3/4-in.	DMI	1 1/2-in. Parabolic
N400739	7-in.	DMI	1 1/2-in. Parabolic
N400740	10-in.	DMI	1 1/2-in. Parabolic



LaserRip™ Classic

The John Deere LaserRip™ Classic is a low disturbance ripper point, ideal for operators who want to create less soil disturbance and a more even soil profile at shallower depths.

Part Number	Size	Applications
KK47198	7-in.	Deere
KK47199	10-in.	Deere



Min-Till LaserRip Points

Features and Benefits

- Designed to create minimum soil disturbance

Min-Till Ripper Point

Part Number	Size	Standard	Soil Surface Profile	Fracturing	Penetration	Speed Sensitivity	Residue Retention
N262903	Wingless	3/4-in.	Ultra Low Disturbance	Good	Best	Best	Best
N262740	7-in.	3/4-in.	Moderate Disturbance	Best	Best	Good	Good
N262902	10-in.	3/4-in.	Low Disturbance	Best	Better	Better	Better



Steel Ripper Points

Features and Benefits

- Designed for highly abrasive soils.
- Economical way to meet standard tillage needs.

Regular-Duty Steel Ripper Points — 3/4-in. thickness

Part Number	Size	Material Thickness	Type
AA21507	2 1/4-in. x 3/4-in.	3/4-in.	Standard
AN260481	3-in. x 3/4-in.	3/4-in.	Single Capped (3 3/4-in.)
AN260482	3-in. x 3/4-in.	3/4-in.	Double Capped (7 1/2-in.)

Heavy-Duty Steel Ripper Points — 1 1/4-in. thickness

Part Number	Size	Material Thickness	Type
AP39487	2 1/2-in. x 1 1/4-in.	1 1/4-in.	Standard
AP39496	3-in. x 1 1/4-in.	1 1/4-in.	Single Chrome Capped (3 3/4-in.)
AP39491	3-in. x 1 1/4-in.	1 1/4-in.	Full-Cover Chrome Capped (10-in.)



Sizes available: 4-in. to 8-in.
N262718 (4-in.), N262719
(6-in.), N262720 (8-in.)

Ripper Points

Coverboards

- For use with LaserRip points on 1 1/4-in. and 1 1/2-in. parabolic standards: John Deere, Case, and DMI. Not for use with wear shins.
- Fit John Deere 2700 Mulch Ripper.

Soil Compaction Tester

Get the best crop yield by measuring the extent and depth of subsurface compaction with the brand new John Deere Soil Compaction Tester.

Some features include:

- 24" stainless steel rod with adjustable shock collar to prevent damage
- Easy-to-read, color coded stainless steel dial that is liquid-filled to reduce shock
 - Green (0-200 psi) = Good growing conditions
 - Yellow (200-300 psi) = Fair growing conditions
- Large and small tip included with convenient storage in tester housing
 - 1/2" tip for firm soil
 - 3/4" tip for soft soil
- Durable molded housing with rubber grip handle

See your local dealer to learn more.



SW SCT08180

NUTRIENT APPLICATION

Timely application and proper placement of nutrients help ensure plants thrive and reach their maximum yield potential while being environmentally responsible.



Nutrient Application Parts

Conventional Applicator Knives

Features and Benefits

- Chrome carbide point for excellent wear
- Available as a standard knife or with vapor tube
- Universal mounting hole for All-Makes applications
- Shank is high strength steel

Anhydrous Knife

Part Number	Description	Thickness
AN231685	Conventional Applicator knife	1/2in
AN401419	Conventional Anhydrous knife	1/2in
AN401420	Conventional Anhydrous knife with Vapor	1/2in
AN401421	Mole Anhydrous knife	1/2in
AN401422	Mole Anhydrous knife with Vapor	1/2in



Heavy-Duty Strip-Till Knives

Features and Benefits

- Provides consistent nutrient placement along with superior compaction shattering.
- Cast-chrome pin-on point provides excellent lifting and fracturing without soil inversion or blowout.
- Points can easily be switched out in season between the mole style and wingless style, depending on soil and field conditions
- Reference page 27 for Heavy Duty part detail

Replaceable Pin-on Points

Features and Benefits

- New wingless point provides a low disturbance option for customers who want to run shallow and fast
- Mole-style option for customers requiring more aggressive tillage and compaction shattering
- Chrome-carbide for excellent wear performance
- Points easily switched between mole and wingless style, depending on soil and field conditions
- Wingless point available as a service part only



AN236320



AN237013

Replaceable Pin-On Points

Part number	Description
AN236320	Mole-Style Replaceable Pin-On Point Kit
AN237013	Wingless Replaceable Pin-On Point Kit

Replaceable Points for 2410C and 2430C

Part number	Description
AKK22496	Bolt-on point
AKK22497	Bolt-on point w/vapor
AKK12703	Pin-on Point
AKK12704	Pin-on Point with Vapor



AKK22487

Nutrient Application Part Detail

Knife part numbers on this page fit the John Deere 2510S. Please note: Poly liquid and vapor tube not included with knife. The poly tubes (liquid and vapor) come with the anhydrous flow system for the toolbar.

Application	Part Number	Quantity	Part Descriptions
Anhydrous 	AN236291	1	Knife Configuration ($\frac{3}{8}$ -in. stainless steel anhydrous ammonia tube)
Anhydrous, Dry, and Vapor 	AN236292	1	Knife Configuration ($\frac{3}{8}$ -in. stainless steel anhydrous ammonia, $1\frac{3}{4}$ -in. dry, and $\frac{3}{4}$ -in. vapor tube)
Anhydrous and Dry 	AN236292	1	Knife Configuration ($\frac{3}{8}$ -in. stainless steel anhydrous ammonia and $1\frac{3}{4}$ -in. dry tube)
Anhydrous and Liquid 	AN236293	1	Knife Configuration ($\frac{3}{8}$ -in. stainless steel anhydrous ammonia and $\frac{1}{2}$ -in. liquid tube)
Anhydrous and Vapor 	AN236293	1	Knife Configuration ($\frac{3}{8}$ -in. stainless steel anhydrous ammonia and $\frac{3}{4}$ -in. vapor tube)
Anhydrous, Liquid, and Vapor 	AN236293	1	Knife Configuration ($\frac{3}{8}$ -in. stainless steel anhydrous ammonia, $\frac{1}{2}$ -in. liquid, and $\frac{3}{4}$ -in. vapor tube)
Mole-Style Replaceable Pin-On Point Kit 	AN236320	1	Cast-Chrome Pin-On Point with A35642 Roll Pin
Wingless Replaceable Pin-On Point Kit 	AN237013	1	Cast-Chrome Reduced Disturbance Pin-On Point with A35462 Roll Pin
Mounting Hardware	19M7481	2	M16 x 80 Cap Screw
	14M7589	2	M16 Locknut

DISK BLADES AND BEARINGS



Disk Blades



Farms and farm equipment manufacturers are requiring a lot more of their disk blades these days. These blades are expected to operate at high speeds pulled by higher horse-power tractors.

John Deere disk blades are manufactured to provide the optimal performance of the tool they are designed for. This includes specifications such as thickness, concavity, hardness and edge type, which most competitive blades don't meet. While we provide specific OEM blades, John Deere also offers all-makes blades that fit on most common competitive machines.

Performance

It is important that replacement blades are compatible with the specific operation. Characteristics such as correct blade diameter, shape, thickness, and edge will affect overall disk performance and must be considered. Choosing the best blade for a specific operation will give the type of penetration, mixing, and residue flow you want without ridging.

Basic Shapes of Disk Blades

John Deere offers four main disk blade shapes: Spherical, raised flat center, conical and cutout blades. The spherical is the most common blade and has no flat areas on the disk. A variation of the spherical is the raised flat center and this blade can be commonly found on the Case-IH brand disks. Conical blades represent a shape cut from a cone. These blades provide aggressive action and it is important that they keep consistent dimension for the entire disk to work properly. Cutout or notched blades are used to penetrate through wet or heavy soil types or fields with more crop residue.



Vertical Tillage

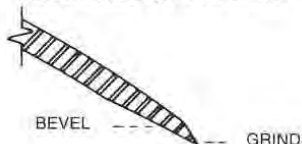
John Deere offers two basic vertical tillage blades, 13 wave for the 2600 series disks and Commander blades for the 2660VT. Vertical tillage blades are generally flatter and regular blades as they need to operate at higher speed without creating excessive soil movement.

TYPES OF DISK EDGES

EDGE #1
OUTSIDE BEVEL, OUTSIDE GRIND



EDGE #10
INSIDE BEVEL, OUTSIDE GRIND



Edge

Select the blade edge to best match customer needs. The No. 1 edge has a beefier profile and is best for rocky conditions. The No. 10 edge has a narrower profile and should work well in most non-rock conditions. Competitors usually offer only one kind of edge.

Edge-Rolling




John Deere offers several disk blades that will support the edge-rolling practices that are commonly used in some areas of the country. John Deere does not recommend rolling disk blades that do not have this "rollable" designation.

John Deere Disk Blade-Replacement Recommendations

Generally a blade will begin to lose its effectiveness for leveling and penetration when it has worn down past **15 to 20** percent of its original size. For example, the following blade sizes would be worn down as follows when applying that rule of thumb:

- 26-in. original diameter — replace when worn to 20¹/₂–21-in.
- 24-in. original diameter — replace when worn to 19¹/₂–20-in.
- 22-in. original diameter — replace when worn to 18¹/₂–19-in.

Type of Disk Blades





Code	Description	Shape
C	Cutout	
PF	Plain Flat Center	
P	Plain Edge	

Common Thicknesses (Gauge)

Metric	Birmingham	Standard
3.0 mm (.118)	11 ga. (.125)	1/8 in. (.125)
3.5 mm (.138)	10 ga. (.134)	
4.0 mm (.157)	9 ga. (.148)	
	8 ga. (.169)	
4.5 mm (.177)	7 ga. (.180)	3/16 in. (.187)
5.0 mm (.197)	6 ga. (.203)	
6.5 mm (.256)		1/4 in. (.250)
8.0 mm (.315)		5/16 in. (.312)
10.0 mm (.394)		3/8 in. (.375)
12.0 mm (.472)		1/2 in. (.500)

Decimal equivalents are in parentheses for comparison.

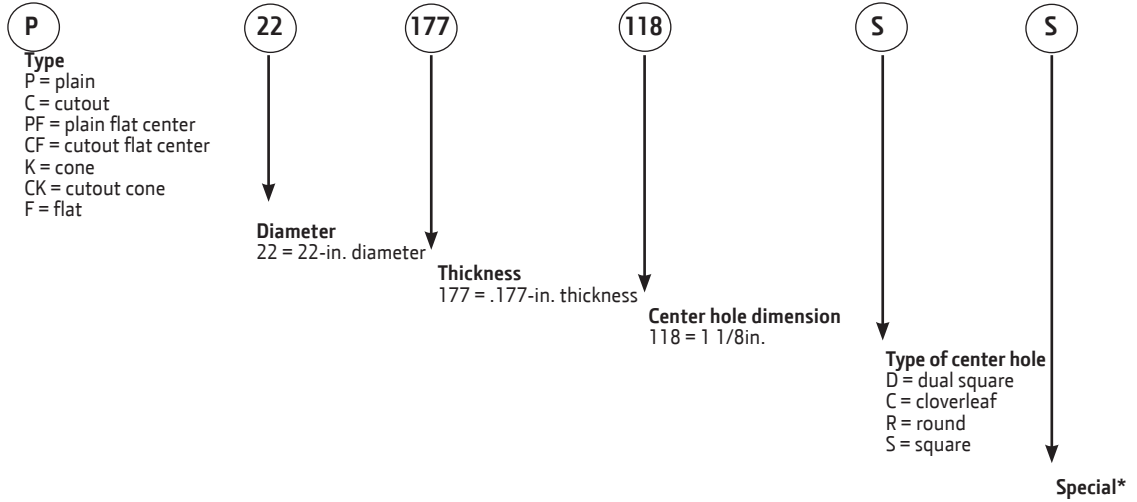
Center holes

Code	Description	Shape	Code	Description	Shape
R	Round		D	Dual Square	
RS	Round Square		S	Square	

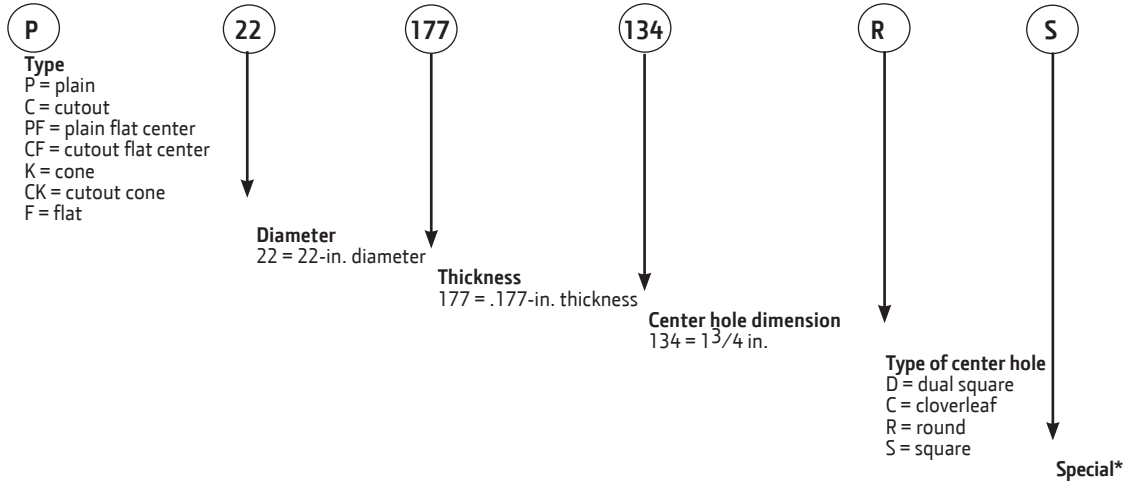
All-Makes Disk Blades — Smart Part Instructions

See the examples below to understand the smart part numbers established for all brands of disk blades.

Example #1: P22177118S



Example #2: P22177134R



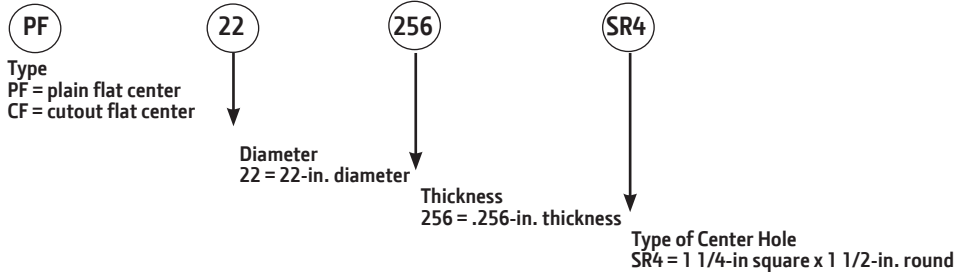
*When sizing Case-IH square/round holes, utilize the hole type code to develop part number.

All-Makes Disk Blades — Smart Part Instructions (continued)

Square Round Center Hole Codes for CNH/IHC Blades

Code	Arbor Square Dimension	Arbor Round Dimension	Blade Square Dimension	Blade Round Dimension
SR-1	7/8-in.	1-in.		
SR-2	1-in.	1 1/8-in.	59/64-in.	13/64-in.
SR-3	1 1/8-in.	1 1/4-in.	13/64-in.	111/64-in.
SR-4	1 1/4-in.	1 1/2-in.	111/64-in.	119/64-in.
SR-4.5	1 1/2-in.	1 5/8-in.	119/64-in.	135/64-in.
SR-5	1 1/2-in.	1 3/4-in.	135/64-in.	143/64-in.
SR-6	1 3/4-in.	2-in.	151/64-in.	151/64-in.
SR-7	2 1/4-in.	1 1/2-in.	219/64-in.	235/64-in.

Example #4: PF22256SR4



*Blades are typically sized with a concavity directly related to the diameter.

For special disking applications, deviations in concavities may occur. When a blade has a special concavity, the part number will be noted with "S". Special concavities are used on plain blades only. The print must be reviewed to identify unique concavity.

Diameter Typical concavity

16 in. 1.5 in.

18 in. 1.75 in.

20 in. 2.0 in.

22 in. 2.50 in.

24 in. 3.0 in.

26 in. 3.5 in.

Disk Blades — Plain Edge

Part Number	Diameter		Thickness		Blade Edge	Center Hole		Center HoleShape	Concavity		App. Type
	inch	mm	inch	mm		inch	mm		inch	mm	
22877	14	356	0.098	2.5	1	0.53	13.49	R	1.19	30.23	John Deere
B27492	14	356	0.118	3	1	1.17	29.72	S	1.19	30.23	John Deere
N216471	14	356	0.118	3	1	2	50.8	R	1.19	30.23	John Deere
A38558	16	406	0.118	3	1	1.06	26.92	R	1.5	38.1	John Deere
B31343	16	406	0.118	3	1	1.05x1.17	26.59x29.77	D	1.45	36.83	John Deere
N186718	16	406	0.177	4.5	1	1.05x1.17	26.59x29.77	D	1.5	38.1	John Deere
A36156	18	457	0.157	4	10	1.17x1.30	29.72x33.02	D	2.8	71.12	John Deere
A39551	18	457	0.118	3	1	1.06	26.92	R	1.75	44.45	John Deere
A47239	18	457	0.177	4.5	1	1.17x1.30	29.77x32.94	D	1.75	44.45	John Deere
B31313	18	457	0.118	3	1	1.05x1.17	26.59x29.77	D	1.75	44.45	John Deere
B31315	18	457	0.138	3.5	1	1.17x1.30	29.77x32.94	D	1.75	44.45	John Deere
N262113	18	457	0.157	4	1	1.16	29.36	R	1.72	43.69	John Deere
N242994	18	457	0.177	4.5	1	2	50.8	R	1.75	44.5	John Deere
A38658	20	508	0.157	4	1	1.06	26.92	R	2	50.8	John Deere
A47237	20	508	0.256	6.5	1	1.17x1.30	29.77x32.94	D	2	50.8	John Deere
B31316	20	508	0.157	4	1	1.17x1.30	29.77x32.94	D	2	50.8	John Deere
B31318	20	508	0.177	4.5	1	1.17x1.30	29.77x32.94	D	2.03	51.56	John Deere
B31321	20	508	0.177	4.5	10	1.17x1.30	29.77x32.94	D	3.32	84.33	John Deere
B32709	20	508	0.177	4.5	1	1.17x1.30	29.77x32.94	D	3.2	81.28	John Deere
N231991	20	508	0.177	4.5	1	1.17x1.30	29.77x32.94	D	1.63	41.4	John Deere
N330738	20	508	0.197	5	1	1.17x1.30	29.77x32.94	D	1.65	41.91	John Deere
P20177118S	20	508	0.177	4.5	1	1.17	29.17	S	1.9	48.26	John Deere
N402465	20	508	0.177	4.5	1	2	50.8	R	1.64	41.9	John Deere
N242912	20	508	0.177	4.5	1	2	50.8	R	1.9	48.3	John Deere
A27767	22	559	0.256	6.5	1	1.55x1.67	32.29x42.49	D	2.5	63.5	John Deere
A27768	22	559	0.256	6.5	10	1.55x1.67	39.29x42.52	D	3.74	94.99	John Deere
A28610	22	559	0.256	6.5	10	1.17x1.30	29.77x32.94	D	3.6	91.77	John Deere
A35487	22	559	0.256	6.5	1	1.17x1.30	29.72x33.02	D	2.56	65.02	John Deere
A42170	22	559	0.256	6.5	1	1.57	39.88	R	2.5	63.5	John Deere
A49254	22	559	0.177	4.5	10	1.17x1.30	29.77x32.94	D	2.5	63.5	John Deere
B32711	22	559	0.177	4.5	10	1.17x1.30	29.77x32.94	D	3.65	92.71	John Deere
N241277	22	559	0.197	5	10	1.17x1.30	29.77x32.94	D	2.07	52.58	John Deere
N242216	22	559	0.256	6.5	1	1.17x1.30	29.77x32.94	D	2.1	53.34	John Deere
P22177118S	22	559	0.177	4.5	1	1.17	29.17	S	2.45	63.5	John Deere
N242915	22	559	0.177	4.5	10	2	50.8	R	2.44	62.2	John Deere
N242917	22	559	0.256	6.5	1	2	50.8	R	2.5	63.5	John Deere
N242996	22	559	0.256	6.5	1	2	50.8	R	2.5	59.8	John Deere
B28211	24	610	0.256	6.5	10	1.55	39.29	S	4.18	106.17	John Deere
B32715	24	610	0.256	6.5	10	1.3	32.94	S	3.87	98.3	John Deere
B32721	24	610	0.256	6.5	10	1.55x1.67	32.29x42.49	D	3.87	98.3	John Deere
B35606	24	610	0.256	6.5	10	1.3	32.94	D	2.84	72.14	John Deere
B35610	24	610	0.256	6.5	10	1.55x1.67	32.29x42.49	D	2.84	72.14	John Deere
K33524	24	610	0.187	4.7	1	1.58	40.08	R	3.6	91	John Deere
N240064	24	610	0.177	4.5	10	1.17x1.30	29.77x32.94	D	2.88	73.15	John Deere
N241278	24	610	0.197	5	10	1.17x1.30	29.77x32.94	D	2.3	58.42	John Deere
N242322	24	610	0.256	6.5	1	1.17x1.30	29.77x32.94	D	2.3	58.42	John Deere

Disk Blades — Plain Edge continued

Part Number	Diameter		Thickness		Blade Edge	Center Hole		Center HoleShape	Concavity		App. Type
	inch	mm	inch	mm		inch	mm		inch	mm	
P24256118S	24	610	0.177	4.5	1	1.17	29.17	S	2.9	74.68	John Deere
N242920	24	610	0.197	5	10	2	50.8	R	2.29	58.4	John Deere
N242921	24	610	0.256	6.5	1	2	50.8	R	2.83	72.1	John Deere
N242998	24	610	0.256	6.5	1	2	50.8	R	2.29	57.2	John Deere
A31998	26	660	0.256	6.5	10	1.55x1.67	32.29x42.49	D	4	101.6	John Deere
B29353	26	660	0.256	6.5	10	1.55	39.29	S	4.69	119.13	John Deere
B32717	26	660	0.256	6.5	10	1.3	33.02	S	4.51	114.55	John Deere
B35608	26	660	0.256	6.5	10	1.3	33.02	S	4	101.6	John Deere
N242039	26	660	0.256	6.5	10	1.3	33.02	S	3.45	87.63	John Deere
N242923	26	660	0.256	6.5	1	2	50.8	R	3.4	86.4	John Deere
Competitive Blade Offerings											
P22256118S	22	559	0.256	6.5	1	1.17	29.72	S	2.48	62.99	All-Makes
P24256112S	24	610	0.256	6.5	1	1.5	38.1	S	3.04	77.22	All-Makes
PM33551445	14	356	0.098	2.4	1	2.5	64	R	0.91	23	DMI
PM33551850	18	457	0.138	3.5	1	1.8	46	R	1.6	41	DMI
PM33552050	20	508	0.197	5	1	5.5	135	R	1.8	44	DMI
PM33552055	20	508	0.256	6.5	1	5.5	135	R	1.8	44	DMI
PM33552255	22	559	0.256	6.5	1	5.5	135	R	1.8	44	DMI
P18138112R	18	457	0.138	3.5	1	1.56	39.62	R	1.74	44.19	Krause
P20177112R	20	508	0.177	4.5	1	1.56	39.7	R	1.89	48.01	Krause
P20197112R	20	508	0.197	5	1	1.55	39.29	R	1.85	46.99	Krause
P22177112R	22	559	0.177	4.5	1	1.55	39.29	R	2.57	65.28	Krause
P22197112R	22	559	0.197	5	1	1.56	39.7	R	2.53	64.26	Krause
P22256112R	22	559	0.256	6.5	1	1.55	39.29	R	2.48	62.99	Krause
P24197112R	24	610	0.197	5	1	1.55	39.29	R	2.8	71.12	Krause
P24256112R	24	610	0.256	6.5	1	1.55	39.29	R	3.04	77.22	Krause
P24256112R	24	610	0.256	6.5	1	1.55	39.29	R	3.04	77.22	Krause
P20197134RS	20	508	0.197	5	1	1.8	45.72	R	1.47	37.34	Landoll/Sunflower
P20256134RS	20	508	0.256	6.5	1	1.8	45.72	R	1.45	36.83	Landoll/Sunflower
P22177134R	22	559	0.177	4.5	1	1.82	46.2	R	2.5	63.5	Landoll/Sunflower
P22197134R	22	559	0.197	5	1	1.8	45.72	R	2.56	65.02	Landoll/Sunflower
P22256134R	22	559	0.256	6.5	1	1.8	45.72	R	2.47	62.74	Landoll/Sunflower
P24177134R	24	610	0.177	4.5	1	1.8	45.72	R	2.81	71.37	Landoll/Sunflower
P24197134R	24	610	0.197	5	1	1.8	45.72	R	2.78	70.61	Landoll/Sunflower
P24256134R	24	610	0.256	6.5	1	1.8	45.72	R	3	76.2	Landoll/Sunflower
P24256134RS	24	610	0.256	6.5	1	1.8	45.72	RS	2.19	55.63	Landoll/Sunflower
PF20177118C	20	508	0.177	4.5	1	1.17	29.77	C	2	50.8	CNH/IHC/NH
PF20177SR3	20	508	0.177	4.5	1	1.23 x 1.36	32.24 x 34.42	sr3	1.93	49.02	CNH/IHC/NH
PF22177118C	22	559	0.177	4.5	1	1.17	29.77	C	2.5	63.5	CNH/IHC/NH
PF22197SR3	22	559	0.197	5	1	1.23 x 1.36	32.24 x 34.42	sr3	2.43	61.72	CNH/IHC/NH
PF22197SR4	22	559	0.197	5	1	1.34 x 1.59	34.04 x 40.39	sr4	2.48	62.99	CNH/IHC/NH
PF22197118C	22	559	0.197	5	1	1.17	29.77	C	2.46	62.48	CNH/IHC/NH
PF22256SR4	22	559	0.256	6.5	1	1.34 x 1.59	34.04 x 40.39	sr4	2.47	62.74	CNH/IHC/NH

Abbreviations: C-Cloverleaf SR3-1 1/8-in sq. x 1 1/4-in. rd. SR4-1 1/4-in. sq. x 1 1/2-in. rd.



Vertical and High Speed Tillage Disk Blades

Part Number	Diameter		Thickness		Blade Edge	Center Hole		Center Hole Shape	Concavity	
	inch	mm	inch	mm		inch	mm		inch	mm
2623VT, 2633VT										
N242916	22	559	0.197	5	10	2	50.8	R	2.07	52.6
N403847	22	559	0.197	5	1	2	50.8	R	2.07	52.6
2660VT - Commander Blades, crimped center and special edge										
KK48473	22	565	.256	6.5	Notched, 11	2.07	52.5	rd	1.22	31
KK50221	20	508	.256	6.5	Notched, 11	2.07	52.5	rd	1.22	31
2680H High Speed Disk										
5NS90340002	20	508	.26	6.6	Notched	N/A - 4 Bolts*		N/A	2.1	53.34
5NS90340003	20	508	.26	6.6	Plain	N/A - 4 Bolts*		N/A	2.1	53.35
5NS90340007	18	457	.26	6.6	Plain	N/A - 4 Bolts*		N/A		

Rollable-Edge Disk Blades



Part Number	Diameter		Thickness		Blade Edge	Disk Edge	Center Hole		Center Hole Shape	Concavity	
	inch	mm	inch	mm			inch	mm		inch	mm
John Deere Applications											
N404744	20	508	0.197	5	Plain	1	2	50.8	S	1.65	41.91
PS222561814D	22	559	0.256	6.5	Plain	special	1.17 x 1.30	29.77 x 32.94	C	2.25	57.15
N402348	22	559	0.256	6.5	Plain	1	2	50.8	R	2.25	57.2
N404600	22	559	0.197	5	Plain	1	2	50.8	S	2.07	52.58
PS242561814D	24	610	0.256	6.5	Plain	special	1.17 x 1.30	29.77 x 32.94	C	2.3	58.42
N402349	24	610	0.256	6.5	Plain	1	2	50.8	R	2.29	58.4
N404601	24	610	0.197	5	Plain	1	2	50.8	S	2.3	58.42
Krause Applications											
PS22256112R	22	559	0.256	6.5	Plain	special	1.55	39.29	R	2.25	57.15
PS24256112R	24	610	0.256	6.5	Plain	special	1.55	39.29	R	2.3	58.42
Landoll/Sunflower Applications											
PS22256134R	22	559	0.256	6.5	Plain	special	1.8	45.72	R	2.25	57.15
PS24256134R	24	610	0.256	6.5	Plain	special	1.8	45.72	R	2.3	58.42

Disk Blades — Cutout Edge



Part Number	Diameter		Thickness		Edge Type	Blade Edge	Center Hole		Center Hole Shape	Concavity	
	inch	mm	inch	mm			inch	mm		inch	mm
A39177	18	457	0.118	3	Cutout, 9	1	1.06	26.92	R	1.75	44.45
B31342	18	457	0.138	3.5	Cutout, 9	1	1.17 x 1.30	29.77 x 32.94	C	1.75	44.45
A39548	18	457	0.177	4.5	Cutout, 3		1.17	29.72	S	1.67	42.42
A39178	20	508	0.157	4	Cutout, 10	1	1.06	26.92	R	2	50.8
B31319	20	508	0.177	4.5	Cutout, 10	1	1.17 x 1.30	29.77 x 32.94	C	2.03	51.56
B32710	20	508	0.177	4.5	Cutout, 6	1	1.17 x 1.30	29.77 x 32.94	C	3.27	83.06
A47238	20	508	0.256	6.5	Cutout, 10	1	1.17 x 1.30	29.77 x 32.94	C	2	50.8
B31323	22	559	0.177	4.5	Cutout, 10	1	1.17 x 1.30	29.77 x 32.94	C	2.5	63.5
B32712	22	559	0.177	4.5	Cutout	10	1.17 x 1.30	29.77 x 32.94	C	3.74	94.99
Q31446	22	559	0.177	4.5	Cutout, 10	1	1.58	40.08	R	2.5	63.5
A36292	22	559	0.256	6.5	Cutout, 10	1	1.17 x 1.30	29.72 x 33.02	C	2.5	63.5
A36293	22	559	0.256	6.5	Cutout, 7	10	1.17 x 1.30	29.72 x 33.02	C	3.62	91.95
N242918	22	559	0.256	6.5	Cutout, 10	1	2	50.8	R	2.57	65.5
B28061	24	610	0.256	6.5	Cutout, 8	10	1.55	39.29	S	4.18	106.17
B32716	24	610	0.256	6.5	Cutout, 8	10	1.30	32.94	S	3.87	98.3
N242047	24	610	0.256	6.5	Cutout, 10	10	1.17 x 1.30	29.77 x 32.94	C	2.3	58.42
B35607	24	610	0.256	6.5	Cutout, 10	10	1.30	32.94	S	2.84	72.14
N242922	24	610	0.256	6.5	Cutout, 10	10	2	50.8	R	2.83	72.1
N242997	24	610	0.256	6.5	Cutout, 10	10	2	50.8	R	2.42	61.7
B29354	26	660	0.256	6.5	Cutout, 9	10	1.55	39.29	S	4.69	119.13
B32092	26	660	0.256	6.5	Cutout, 10	1	1.55	39.29	S	3.75	95.25
A34797	26	660	0.256	6.5	Cutout, 10	10	1.3	33.02	S	4	101.6
B32718	26	660	0.256	6.5	Cutout, 9	10	1.3	33.02	S	4.35	110.49
N242344	26	660	0.256	6.5	Cutout, 10	10	1.3	33.02	S	3.45	87.63
B32720	26	660	0.315	8	Cutout, 9	10	1.55 x 1.67	32.29 x 42.49	C	4.51	114.55
N242924	26	660	0.256	6.5	Cutout, 10	10	2	50.8	R	3.29	83.8

Abbreviations: D - Dual Square RS - Round Square R - Round S - Square

Coulter Blades

Customize your equipment to match any trash-cutting or row-tillage requirements. Special micro-alloy material and advanced manufacturing technology make these blades tougher than anything in the field. Each blade is made to the same stringent John Deere specifications. The end result is a blade that maintains its diameter and edge longer, resulting in extended life and performance.



BUBBLE

- Aggressively tills as the point bubbles enter the soil.
- Cuts through tough residue.
- Works well in wet conditions.



8 WAVE

- Performs well at high planting speeds.
- Less soil disruption, but gives a versatile seedbed for good seed-to-soil contact.



13 FLUTE

- Designed for slower planting speeds.
- Aggressively tills a wider area for a good seedbed.



25 WAVE

- Slower-speed blade for a fine-tilled seedbed.
- Works well in wet conditions.

Tillage Coulter Blades

Part Number	Description	Blade Type	Diameter		Thickness		Bolts
			inch	mm	inch	mm	
N283805	Blade, Double-Disk Opener	Flat	13.5	343	0.098	2.5	1
33124	Blade, Coulter, Flat	Flat	15	381	0.138	3.5	5
A17093	Blade, Coulter, 50 Ripples	Ripple	17	432	0.138	3.5	6
33131	Blade, Coulter, Flat	Flat	17	432	0.157	4.0	6
N130051	Blade, Coulter, Flat	Flat	18	456	0.177	4.5	4
A17842	Blade, Coulter, 54 Ripples	Ripple	18	457	0.157	4.0	6
A33005	Blade, Coulter, 54 Ripples	Ripple	18	457	0.157	4.0	5
N283804	Blade, Single-Disk Opener	Flat	18	459	0.197	5.0	4
A17094	Blade, Coulter, 60 Ripples	Ripple	20	508	0.177	4.5	6
A33066	Blade, Coulter, 60 Ripples	Ripple	20	508	0.177	4.5	5
A36114	Blade, Coulter, Flat	Flat	20	508	0.177	4.5	5
N233826	Blade, Coulter, 60 Ripples	Ripple	20	514	0.177	4.5	4
PM33502042	Blade, Coulter, Flat	Flat	20	518	0.177	4.5	4
N216270	Blade, Coulter, Flat	Flat	20	518	0.177	4.5	4
N187522	Blade, Coulter, Flat	Flat	20	518	0.197	5.0	1
F20256134R	Blade, Coulter, Flat	Flat	20	518	0.256	6.5	1
A34776	Blade, Coulter, 60 Ripples	Ripple	22	559	0.177	4.5	5
N262329	Blade, Coulter, Flat	Flat	22	559	0.177	4.5	4
N183542	Blade, Coulter, Flat	Flat	22	564	0.177	4.5	1
PM33502240	Blade, Coulter, Flat	Flat	22	577	0.177	4.5	4
PM33502442	Blade, Coulter, Flat	Flat	25	632	0.197	5.0	4

Combination Scrapers



- Self-adjusting for sticky soil.
- Can be locked tight for light, sandy, or dry soil to prevent wear on the blade.
- Positioned to direct soil back, rather than up on gangs.
- High-strength steel.
- Heat-treated.

Rigid Scrapers



- Clean blades in most conditions.
- Easy to adjust for long life and good performance.
- Mounting bar positioned to allow good residue flow.
- Heat-treated.

Heavy-Duty Disk Spools



- Designed to handle the constant hammering to the gang and to prevent the gang bolt from flexing when an obstacle is struck.
- The larger surface diameter also provides extra blade support to help reduce blade breakage.

Heavy-Duty Reinforced Sleeve



- The John Deere disk uses a heavy-duty sleeve in the gang assembly.
- The sleeves are made out of high-carbon seamless tubing with thicker walls for longer wear life and strength. It is placed between spools carrying the bearing.
- The sleeve reinforces the spool and axle, and distributes the bearing load as the sleeve fits into the end of the spool.

The John Deere reinforced sleeves offer:

Features

- Thick wall.
- Drawn I.D. and O.D.
- Accurate flow.
- High-carbon steel.

Benefits

- Withstand operating stress in the standard area.
- Fits tightly to I.D. control dimensions of bearing.
- Consistent strength throughout.
- Long wear life.

Gang Bolts for John Deere Disks



John Deere gang bolts contain high-carbon steel while some of our competitors use medium-carbon steel. This means the John Deere gang bolt is less likely to bend or box, which would impact the performance of the total gang assembly.

*Gang-bolt lengths are measured from below the head of the bolt.

Square Body	Round Head	Square Body	Round Head
Part number	*Nuts and washers dimensions	Part number	*Dimension
A15143	1 1/8-in. sq. x 10.12-in.	B34225	1 1/4-in. sq. x 65.80 in.
A20132	1 1/8-in. sq. x 38.12 in.	B34219	1 1/4-in. sq. x 68.74 in.
A20133	1 1/8-in. sq. x 50.70 in.	B34226	1 1/4-in. sq. x 74.89 in.
A20134	1 1/8-in. sq. x 59.70	B13681	1 1/4-in. sq. x 78.38 in.
A20615	1 1/8-in. sq. x 65.00 in.	B34220	1 1/4-in. sq. x 79.35 in.
N241664	1 1/8-in. sq. x 67.25 in.	B34227	1 1/4-in. sq. x 84.00 in.
N241665	1 1/8-in. sq. x 74.50 in.	B34221	1 1/4-in. sq. x 90.36 in.
N241666	1 1/8-in. sq. x 81.75 in.		
A20617	1 1/8-in. sq. x 83.00 in.		
A40826	1 1/8-in. sq. x 92.19 in.		
A40827	1 1/8-in. sq. x 101.19 in.		

Square Body	Square Head	Square Body	Square Head	Square Body	Square Head
Part number	* Dimension	Part number	* Dimension	Part number	* Dimension
30750	1-in. sq. x 22.50 in.	N184523	1 1/8-in. sq. x 62.50 in.	B34224	1 1/4-in. sq. x 56.70 in.
N189983	1-in. sq. x 74.90 in.	N281323	1 1/8-in. sq. x 62.75 in.	B13159	1 1/4-in. sq. x 62.00 in.
N261792	1 1/8-in. sq. x 6.12 in.	A20615	1 1/8-in. sq. x 65.00 in.	B34225	1 1/4-in. sq. x 65.80 in.
N241638	1 1/8-in. sq. x 7.00 in.	N240687	1 1/8-in. sq. x 67.10 in.	B34219	1 1/4-in. sq. x 68.36 in.
A15143	1 1/8-in. sq. x 10.12 in.	N241664	1 1/8-in. sq. x 67.38 in.	B13161	1 1/4-in. sq. x 69.80 in.
N260928	1 1/8-in. sq. x 10.40 in.	B12172	1 1/8-in. sq. x 69.75 in.	N262064	1 1/4-in. sq. x 70.24 in.
Q437K	1 1/8-in. sq. x 20.19 in.	A20616	1 1/8-in. sq. x 74.00 in.	B34226	1 1/4-in. sq. x 74.90 in.
A20131	1 1/8-in. sq. x 29.00 in.	P70772	1 1/8-in. sq. x 74.33 in.	B13681	1 1/4-in. sq. x 78.38 in.
A20132	1 1/8-in. sq. x 38.12 in.	N240688	1 1/8-in. sq. x 74.35 in.	B34220	1 1/4-in. sq. x 79.36 in.
N241660	1 1/8-in. sq. x 38.23 in.	N241665	1 1/8-in. sq. x 74.73 in.	B34227	1 1/4-in. sq. x 84.00 in.
P55127	1 1/8-in. sq. x 38.27 in.	B12173	1 1/8-in. sq. x 78.06 in.	B34221	1 1/4-in. sq. x 90.36 in.
N281316	1 1/8-in. sq. x 38.75 in.	N240689	1 1/8-in. sq. x 81.60 in.	A26367	1 1/4-in. sq. x 93.10 in.
B10482	1 1/8-in. sq. x 44.38 in.	N241666	1 1/8-in. sq. x 82.03 in.	A26368	1 1/4-in. sq. x 101.36 in.
N240684	1 1/8-in. sq. x 45.35 in.	A20617	1 1/8-in. sq. x 83.00 in.	A33123	1 1/4-in. sq. x 102.48 in.
N241661	1 1/8-in. sq. x 45.48 in.	AP40416	1 1/8-in. sq. x 83.86 in.	N262065	1 1/4-in. sq. x 103.24 in.
N281317	1 1/8-in. sq. x 45.48 in.	N240690	1 1/8-in. sq. x 88.85 in.	A37822	1 1/4-in. sq. x 112.36 in.
A20133	1 1/8-in. sq. x 47.00 in.	N241667	1 1/8-in. sq. x 89.38 in.	N241153	1 1/4-in. sq. x 123.36 in.
P55862	1 1/8-in. sq. x 47.40 in.	A40826	1 1/8-in. sq. x 92.19 in.	B32003	1 1/2-in. sq. x 56.90 in.
N281320	1 1/8-in. sq. x 50.75 in.	N241668	1 1/8-in. sq. x 96.68 in.	B15415	1 1/2-in. sq. x 57.38 in.
N240685	1 1/8-in. sq. x 52.60 in.	A40827	1 1/8-in. sq. x 101.19 in.	B34218	1 1/2-in. sq. x 57.38 in.
N241662	1 1/8-in. sq. x 52.73 in.	P58273	1 1/8-in. sq. x 102.93 in.	B32002	1 1/2-in. sq. x 67.90 in.
B12170	1 1/8-in. sq. x 52.75 in.	A16841	1 1/8-in. sq. x 187.75 in.	B32001	1 1/2-in. sq. x 90.40 in.
N281322	1 1/8-in. sq. x 55.25 in.	B34222	1 1/4-in. sq. x 38.50 in.	N402318	2-in. sq. x 48.27 in.
A20134	1 1/8-in. sq. x 56.00 in.	B34217	1 1/4-in. sq. x 46.30 in.	N242978	2-in. sq. x 49.45 in.
N240686	1 1/8-in. sq. x 59.85 in.	P58274	1 1/4-in. sq. x 46.94 in.		
		B34223	1 1/4-in. sq. x 47.60 in.		

Gang Bolts for John Deere Disks (continued)

*Gang-bolt lengths are measured from below the head of the bolt.

Square Body		Square Head		Square Body		Hex Head	
Part number	*Dimensions	Part number	*Dimensions	Part number	*Dimension	Part number	*Dimension
KK15212	2-in. sq. x 55.28 in.	N243008	2-in. sq. x 84.68 in.	B11044	1 1/8-in. sq. x 125.13 in.	A41971	1-in. sq. x 31.57 in.
N242979	2-in. sq. x 58.43 in.	N242982	2-in. sq. x 85.47 in.	B11045	1 1/8-in. sq. x 148.37 in.	A41969	1-in. sq. x 38.70 in.
N401856	2-in. sq. x 59.29 in.	N243155	2-in. sq. x 91.65 in.	A16841	1 1/8-in. sq. x 187.75 in.	A41970	1-in. sq. x 47.48 in.
KK15211	2-in. sq. x 62.56 in.	N402168	2-in. sq. x 92.44 in.	AP29932	1 1/2-in. sq. x 50.00 in.	A45919	1-in. sq. x 56.50 in.
N242980	2-in. sq. x 67.44 in.	N242917	2-in. sq. x 93.82 in.	AP29702	1 1/2-in. sq. x 59.13 in.	N240397	1-in. sq. x 65.50 in.
N242990	2-in. sq. x 69.84 in.	N242983	2-in. sq. x 94.49 in.	AP29703	1 1/2-in. sq. x 105.28 in.		
N242991	2-in. sq. x 70.31 in.	N243006	2-in. sq. x 98.94 in.				
N242976	2-in. sq. x 75.91 in.	N242972	2-in. sq. x 102.79 in.				
N242981	2-in. sq. x 76.46 in.	N242984	2-in. sq. x 103.50 in.				
N243005	2-in. sq. x 77.13 in.	N243152	2-in. sq. x 114.33 in.				
N243007	2-in. sq. x 81.26 in.	N400393	2-in. sq. x 125.35 in.				

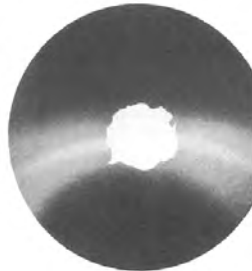
Our Adjustment Policy on Disk Blade Failure

Our adjustment policy is designed to be fair to both the user and the manufacturer. In these drawings of impaired disks, we have indicated typical disk failures and the most common reasons for these failures. John Deere disk blades with warrantable breaks as shown have worn less than 10 percent of the original diameter (center breakage excluded) up to one year from date of purchase.

Example of Disk Blade Field Failure



Straight directional break due to defective material. Full credit is granted at original purchase price.



Breakout of center of disk. Generally caused by tilling over rocks or stumps, loose gang bolts, and excessive disk flexing. Credit is not offered.



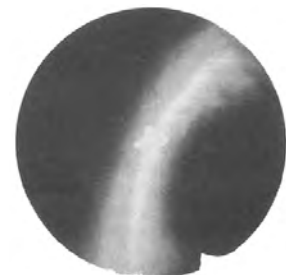
Disk fracture resulting from contact with rocks, stumps, or other solid objects. Credit is not offered.



Disk fracture resulting from contact with rocks, stumps, or other solid objects. Credit is not offered.



Disk fracture resulting from contact with rocks, stumps, or other solid objects. Credit is not offered.



Chipped and dented edges resulting from contact with rocks, stumps, or other solid objects. Credit is not offered.

John Deere Dura-Flex™ Bearings



Gang Bearings

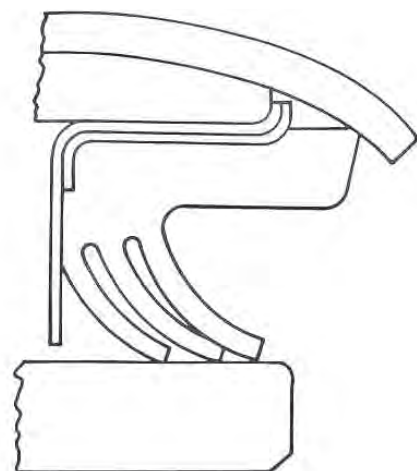
Dura-Flex gang bearings with 3 + 1 seals are one of the finest examples of John Deere engineering. This exclusive patented design has greatly increased bearing life when used with either flange or cast housing.



Bearing with Flange Housing

The 3 + 1 seal design posed a unique challenge in the seal material itself. The three long flexible seals require contradicting qualities — toughness for long wear, yet resiliency for constant spring-like action to seal against the inner race. The three lips shield the bearings, thereby keeping dirt out while allowing old grease to be purged from the heart of the bearing by fresh grease. Bearing failure is caused by contamination and/or misalignment. With three seals to protect the bearing against contamination, the engineers set out to design a true self-aligning bearing. The housing extends beyond the outer race of the bearing, contacting the fourth or outer seal when the two housing halves are clinched together. This fourth seal serves three functions:

- 1) Frees the outer race to realign inside the housing.
- 2) Prevents the bearing from turning inside the housing.
- 3) Provides a positive seal to keep dirt from getting in between the outer race and bearing.



3 + 1 Seal

Housings

For repair, John Deere offers two types of housings: cast or flange. Both offer the same protection, allowing the bearing to realign.

The flange housing is designed for most conditions. The flange housing with bearing wear guards can also preserve bearing life and provides an economical alternative if some protection is desired.

The cast housing is designed to preserve bearing life in very abrasive soils and is used with a heavier standard and a large-diameter spool for better blade backup.

The cast or extended flange housing also adds protection against wrapping of twine, wire, or grass.

Part number	Inside Dimensions		Outside Dimensions		Outer Race Width in.	Outer Race Width mm
	inch	mm	inch	mm		
AA28184	1.777	45.16	3.346	85	1.187	30.163
AA30941	Dura-Flex Bearing Kit - Includes: AA28184 bearing, flanges, gasket, bolts, nuts					

John Deere Limited or Maintenance Free Bearings

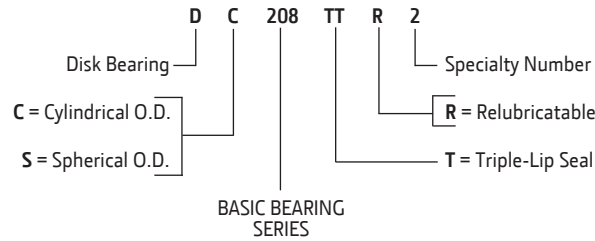


Maintenance free bearings are features of the new John Deere 2600 Series Disks. A high-density polymer liner allows the bearing to dynamically align the shaft in rough field conditions.

These new bearings increase productivity by reducing the amount of time needed to service the disk before operation and allow the customer to spend more time in the field.

Part number	Inside Dimensions		Outside Dimensions		Outer Race Width inch	Outer Race Width mm
	inch	mm	inch	mm		
AKK16196	2.194	55.75	3.937	100	1.562	39.688
AKK22197	2.194	55.75	3.937	100	1.31	33.34

Disk-Bearing Identification Code



John Deere Dura-Flex™ Bearings



All-Makes Bearings

Disk bearings

Choosing The Right Bearing

Load, speed, shaft diameter, and projected fatigue life are important considerations affecting the selection of a suitable disk-blade bearing. Bearing type and bearing fatigue life can be substantially influenced by environmental conditions such as operating speed, alignment, lubrication type, and contamination.

When selecting a John Deere or All-Makes bearing for a disk-blade application, you can be sure that the life-load relationship has been met in regard to:

- 1) Fatigue life — hours that a bearing will attain or exceed.
- 2) Radial load — the load applied to a bearing with a rotating inner ring and stationary outer ring that would be attained under the actual conditions of a load and rotation.
- 3) Speed in rpm — rotation.

John Deere bearings, regardless of supplier, are manufactured and tested to rigid quality standards to ensure they stand up to tough use:

- 1) Laboratory Tests — under accelerated conditions, various bearing types and sources are tested to ensure the correct bearing is selected.
- 2) Field Tests — in actual working conditions.

By using John Deere replacement bearings, the customer can be assured of getting a bearing with the correct sealing, lubrication, internal tolerance finish, load, and speed characteristics. This means longer bearing life and reduced downtime.

Feature/Benefit Summary

Designed and manufactured to John Deere tolerance requirements:

- Ensures long bearing life.
- Reduces costly machine downtime.

Application tested:

- Ensures correct bearing for specific application.

Disk Bearings — Cross-Reference Specifications

Square Bore Size

Part Number	Supplier	Inside Dimension (in.)	Inside Dimension (mm)	Outside Dimension (in.)	Outside Dimension (mm)	Outer Race Width (in.)	Outer Race Width (mm)
PMDC208TT8	W208PP8	1.125	28.5750	3.150	80.00000	1.188	30.16250
PMDC208T-	GW208PP17	1.125	28.5750	3.376	85.73770	1.188	30.17520
PMDC209TTR8	GW209PPB8	1.250	31.7500	3.347	85.00110	0.886	22.50694
PMDC210TT4	W210PP4	1.125	28.5750	3.543	89.99982	1.188	30.16250
PMDC211TT3	W211PP3	1.500	38.1000	3.937	100.00000	1.313	33.33750
PMDC211TT5	W211PP5	1.500	38.1000	4.000	101.60000	1.438	36.52520
PMDC211TTR3	GW211PP3	1.500	38.1000	3.937	100.00000	1.313	33.33750
PMDC211TTR4	DC211TTR4	1.500	38.1000	3.937	100.00000	1.313	33.33750
PMDC214TTR3	GW214PP3	2.688	68.2625	4.921	125.00102	1.563	39.68750
PMDS208TT12	DS208TT12	1.125	28.5750	3.443	87.45220	1.188	30.16250
PMDS208TT6	W208PPB6	1.000	25.4000	3.150	80.00000	0.709	18.00098
PMDS208TT8	DS208TT8	1.125	28.5750	3.150	79.99984	1.188	30.16250
PMDS208TTR8	DS208TTR8	1.125	28.5750	3.150	79.99984	1.188	30.16250
PMDS209TT5	W209PPB5	1.250	31.7500	3.347	85.00110	1.188	30.16250
PMDS209TTR5	GW209PPB5	1.250	31.7500	3.347	85.00110	1.188	30.16250
PMDS210TTR4	GW210PPB4	1.125	28.5750	3.543	89.99982	1.188	30.16250
PMDS211TT3	W211PPB3	1.500	38.1000	3.937	99.99980	1.313	33.33750
PMDS211TT6	W211PPB6	1.500	38.1000	4.130	104.90200	1.438	36.51250
PMDS211TTR3	GW211PPB3	1.500	38.1000	3.937	99.99980	1.313	33.33750
PMFD209RK	FD209 – 1¼ SQ	1.250	31.7500	5.000	127.00000	1.687	42.84980
PMFD209RM	FD209 – 1⅛ SQ	1.125	28.5750	5.000	127.00000	1.687	42.84980
PMFD211RM	FD211 – 1½ SQ	1.500	38.1000	5.500	139.70000	2.000	50.80000

Round Bore Size

Part Number	Supplier	Inside Dimension (in.)	Inside Dimension (mm)	Outside Dimension (in.)	Outside Dimension (mm)	Outer Race Width (in.)	Outer Race Width (mm)
PMDC208TT10	W208PP10	1.500	38.10000	3.150	79.99984	0.827	21.00072
PMDC211T-	GW211PP25	1.775	45.08500	3.937	99.99980	1.313	33.33750
PMDS208TT7	W208PPB7	1.188	30.16250	3.150	79.99984	0.709	18.00098
PMDS209TT2	W209PPB2	1.771	44.98848	3.347	85.00110	1.188	30.16250
PMDS209TT4	W209PPB4	1.525	38.73500	3.347	85.00110	1.188	30.16250
PMDS209TT6	DS209TT6	1.525	38.73500	3.443	87.45220	1.188	30.16250
PMDS209TTR2	GW209PPB2	1.771	44.98848	3.347	85.00110	1.188	30.16250
PMDS210TT2	W210PPB2	1.938	49.21250	3.543	89.99982	1.188	30.16250
PMDS210TT5	W210PPB5	1.775	45.08500	3.543	89.99982	1.188	30.16250
PMDS210TTR2	GW210PPB2	1.938	49.21250	3.543	89.99982	1.188	30.16250
PMDS210T-	GW210PPB5	1.775	45.08500	3.543	89.99982	1.188	30.16250
PMDS211TT2	W211PPB2	2.188	55.57520	3.937	99.99980	1.313	33.33750
PMDS211TT4	W211PPB4	2.187	55.55996	3.937	99.99980	1.312	33.32480
PMDS211TTR14	GW211PPB14	2.005	50.92700	3.937	99.99980	0.984	25.00122
PMDS211TTR2	GW211PPB2	2.187	55.55996	3.937	99.99980	1.313	33.33750
PMDS211TTR23	DS211TTR23	1.775	45.08500	3.980	101.09200	1.335	33.90900
PMFD209RA	ST491A	1.750	44.45000	5.000	127.00000	1.687	42.84980
PMFD209RB	ST491B	1.500	38.10000	5.000	127.00000	1.687	42.84980
PMFD211RE	FD211-1-3/4RD	1.750	44.45000	5.500	139.70000	2.187	55.54980

Abbreviations: SQ – Square
RD – Round

