

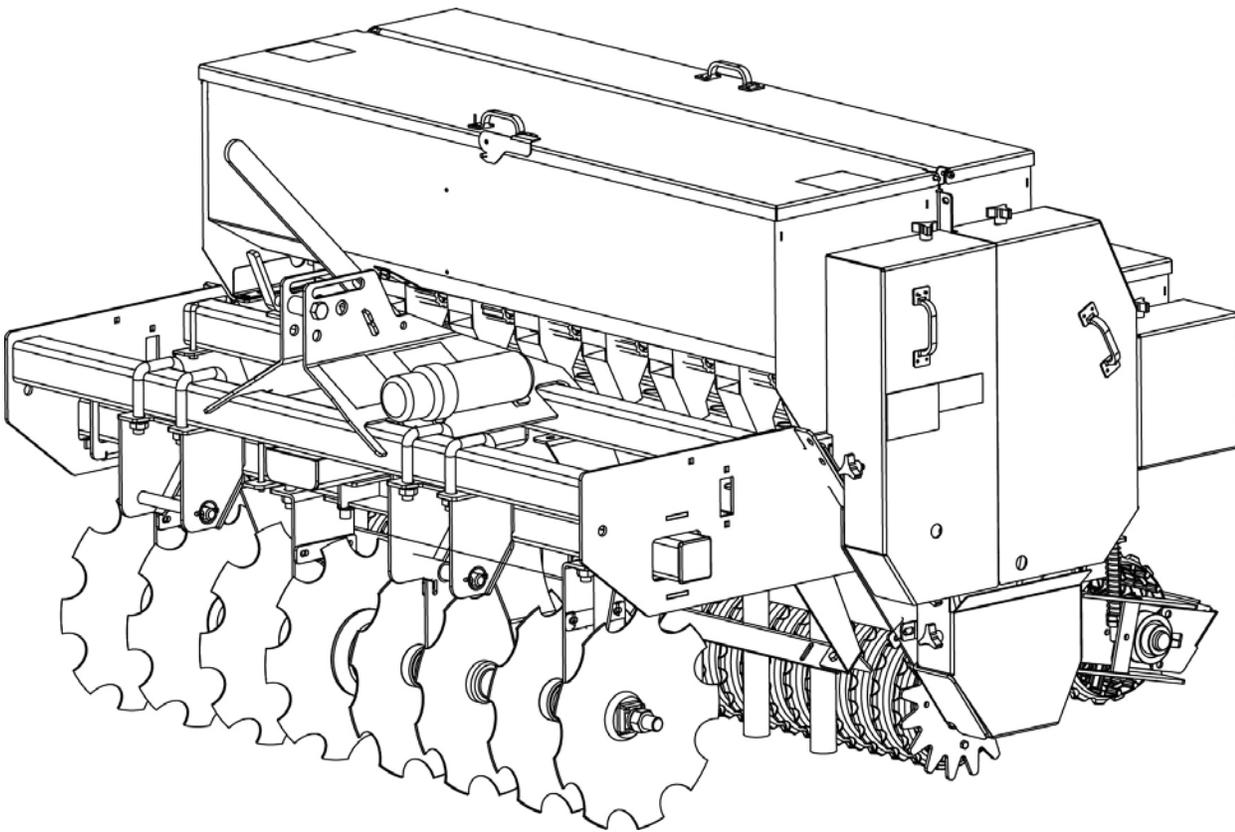
FOOD PLOT SEEDER

FPS48

FPS60

FPS72

FPS84



MAN1074
(Rev. 7/24/2019)

WOODS®

OPERATOR'S MANUAL

TO THE DEALER:

Assembly and proper installation of this product is the responsibility of the Woods® dealer. Read manual instructions and safety rules. Make sure all items on the Dealer's Pre-Delivery and Delivery Check Lists in the Operator's Manual are completed before releasing equipment to the owner.

The dealer must complete the online Product Registration form at the Woods Dealer Website which certifies that all Dealer Check List items have been completed. Dealers can register all Woods product at dealer.WoodsEquipment.com under Product Registration.

Failure to register the product does not diminish customer's warranty rights.

TO THE OWNER:

Read this manual before operating your Woods equipment. The information presented will prepare you to do a better and safer job. Keep this manual handy for ready reference. Require all operators to read this manual carefully and become acquainted with all adjustment and operating procedures before attempting to operate. Replacement manuals can be obtained from your dealer. To locate your nearest dealer, check the Dealer Locator at www.WoodsEquipment.com, or in the United States and Canada call 1-800-319-6637.

The equipment you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate the unit as specified. Observe all safety information in this manual and safety decals on the equipment.

For service, your authorized Woods dealer has trained mechanics, genuine Woods service parts, and the necessary tools and equipment to handle all your needs.

Use only genuine Woods service parts. Substitute parts will void the warranty and may not meet standards required for safe and satisfactory operation. Record the model number and serial number of your equipment in the spaces provided:

Model: _____ **Date of Purchase:** _____

Serial Number: (see Safety Decal section for location) _____

Provide this information to your dealer to obtain correct repair parts.

Throughout this manual, the term **NOTICE** is used to indicate that failure to observe can cause damage to equipment. The terms **CAUTION**, **WARNING**, and **DANGER** are used in conjunction with the Safety-Alert Symbol (a triangle with an exclamation mark) to indicate the degree of hazard for items of personal safety.



This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



Indicates a hazardous situation that, if not avoided, will result in death or serious injury.



Indicates a hazardous situation that, if not avoided, could result in death or serious injury.



Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

**IMPORTANT
or NOTICE**

Is used to address practices not related to physical injury.

NOTE Indicates helpful information.

ALITEC™

CENTRAL FABRICATORS®

GANNON®

WAIN-ROY®

WOODS®

WOODS®

2 Introduction

Gen'l (Rev. 2/25/2016)

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¡LEA EL INSTRUCTIVO!

Si no lee Ingles, pida ayuda a alguien que si lo lee para que le traduzca las medidas de seguridad.



This Operator's Manual should be regarded as part of the machine. Suppliers of both new and second-hand machines must make sure that this manual is provided with the machine.

SPECIFICATIONS

	FPS48	FPS60	FPS72	FPS84
Working Width	49.25"	60"	72"	84"
Overall Width (Nylon Cultipacker)	60.75"	71.50"	83.50"	95.50"
Cultipacker Diameter (Front and Rear)	11"	11"	11"	11"
Front Disc Angle	0°,8°,12°,17°,23°	0°,6°,10°,14°,18°	0°,5°,8°,12°,15°	0°,4°,6°,9°,13°
Disc Diameter	16" notched	16" notched	18" notched	18" notched
Disc Spacing	7.5"	7.5"	7.5"	7.5"
Hitch	Cat I, II	Cat I, II	Cat I, II	Cat I, II
Quick Hitch compatible	Y	Y	Y	Y
Tractor HP Requirement	25-45 hp	30-65 hp	35-85 hp	40-125 hp
Base Unit (Lightest) Weight - Disc, Primary Box, Row Unit, Spiked Drive Roller	836 lbs.	904 lbs.	1191 lbs.	1310 lbs.
Fully Configured (Heaviest) Weight - Disc, Primary Box, Two Legume Boxes, Row Unit, Cast Iron Cultipacker, Scrapers, Cultipacker Drive Roller	1268 lbs.	1423 lbs.	1824 lbs.	2051 lbs.
Primary Seedbox Capacity (bu)	4	5	6	7
Legume Seedbox Capacity (bu)	1	1.25	1.5	1.75
Seedcups/Picker wheels	7	8	10	12
Primary Seed Distribution Method	Row	Row	Row	Row
Legume Seed Distribution Method	Broadcast drop with wind deflector tray			

GENERAL INFORMATION

The purpose of this manual is to assist you in operating and maintaining your Food Plot Seeder. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance. These instructions have been compiled from extensive field experience and engineering data. Some information may be general in nature due to unknown and varying operating conditions. However, through experience and these instructions, you should be able to develop procedures suitable to your particular situation.

The illustrations and data used in this manual were current at the time of printing but, due to possible inline production changes, your machine may vary slightly in detail. We reserve the right to redesign and change the machines as may be necessary without notification.

WARNING

- **Food Plot Seeder should never be operated with any safety shielding removed.**

Throughout this manual, references are made to right and left direction. These are determined by standing behind the equipment facing the direction of forward travel.



SAFETY RULES

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by an operator's single careless act.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, judgement, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.

It has been said, "The best safety device is an informed, careful operator." We ask you to be that kind of operator.

TRAINING

■ **Safety instructions are important! Read all attachment and power unit manuals; follow all safety rules and safety decal information. (Replacement manuals and safety decals are available from your dealer. To locate your nearest dealer, check the Dealer Locator at www.WoodsEquipment.com, or in the United States and Canada call 1-800-319-6637.) Failure to follow instructions or safety rules can result in serious injury or death.**

■ **If you do not understand any part of this manual and need assistance, see your dealer.**

■ **Know your controls and how to stop engine and attachment quickly in an emergency.**

■ **Operators must be instructed in and be capable of the safe operation of the equipment, its attachments, and all controls. Do not allow anyone to operate this equipment without proper instructions.**

■ **Never allow children or untrained persons to operate equipment.**

PREPARATION

■ **Check that all hardware is properly installed. Always tighten to torque chart specifications unless instructed otherwise in this manual.**

■ **Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.**

■ **Make sure attachment is properly secured, adjusted, and in good operating condition.**

■ **Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)**

■ **A minimum 20% of tractor and equipment weight must be on the tractor front wheels when attachments are in transport position. Without this weight, front tractor wheels could raise up resulting in loss of steering. The weight may be attained with front wheel weights, ballast in tires, front tractor weights or front loader. Weigh the tractor and equipment. Do not estimate.**

OPERATION

■ **Keep bystanders away from equipment.**

■ **Do not operate or transport equipment while under the influence of alcohol or drugs.**

■ **Install Lighting Kit 604387 when this equipment obscures the tractor's tail lamps or stop lamps.**

■ **Operate only in daylight or good artificial light.**

■ **Keep hands, feet, hair, and clothing away from equipment while engine is running. Stay clear of all moving parts.**

■ **Always comply with all state and local lighting and marking requirements.**

■ **Never allow riders on power unit or attachment.**

■ **Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS system in "locked up" position at all times.**

■ **Always sit in power unit seat when operating controls or starting engine. Securely fasten seat belt, place transmission in neutral, engage brake, and ensure all other controls are disengaged before starting power unit engine.**

■ **Look down and to the rear and make sure area is clear before traveling in reverse.**

■ **Do not operate seeder in reverse.**

■ **Use extreme care when working close to fences, ditches, other obstructions, or on hillsides.**

■ **Do not operate or transport on steep slopes.**

■ **Do not stop, start, or change directions suddenly on slopes.**

■ **Use extreme care and reduce ground speed on slopes and rough terrain.**

(Safety Rules continued on next page)

SAFETY RULES



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



(Safety Rules continued from previous page)

- Watch for hidden hazards on the terrain during operation.
- Stop power unit and equipment immediately upon striking an obstruction. Turn off engine, remove key, inspect, and repair any damage before resuming operation.

TRANSPORTATION

- Use additional caution and reduce speed when under adverse surface conditions, turning, or on inclines.
- A minimum 20% of tractor and equipment weight must be on the tractor front wheels when attachments are in transport position. Without this weight, front tractor wheels could raise up resulting in loss of steering. The weight may be attained with front wheel weights, ballast in tires, front tractor weights or front loader. Weigh the tractor and equipment. Do not estimate.
- Do not operate or transport on steep slopes.
- Do not operate or transport equipment while under the influence of alcohol or drugs.
- Always comply with all state and local lighting and marking requirements.
- Never allow riders on power unit or attachment.
- Install Lighting Kit 604387 when this equipment obscures the tractor's tail lamps or stop lamps.
- Always raise unit and install transport lock before transporting. Leak down or failure of mechanical or hydraulic system can cause equipment to drop.
- Always attach safety chain to tractor drawbar when transporting unit.
- Never exceed 25 mph (40.2 km/h) during transport.

MAINTENANCE

- Before dismounting power unit or performing any service or maintenance, follow these steps:

disengage power to equipment, lower the 3-point hitch and all raised components to the ground, operate valve levers to release any hydraulic pressure, set parking brake, stop engine, remove key, and unfasten seat belt.

- **NEVER GO UNDERNEATH EQUIPMENT.** Never place any part of the body underneath equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak-down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.

- Service work does not require going underneath.
- Read Operator's Manual for service instructions or have service performed by a qualified dealer.

- Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.

- Make sure attachment is properly secured, adjusted, and in good operating condition.

- Keep all persons away from operator control area while performing adjustments, service, or maintenance.

- Tighten all bolts, nuts, and screws to torque chart specifications. Check that all cotter pins are installed securely to ensure equipment is in a safe condition before putting unit into service.

- Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)

STORAGE

- Block equipment securely for storage.
- Keep children and bystanders away from storage area.





SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!
Replace Immediately If Damaged!



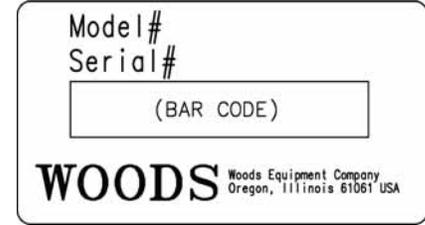
4 - PN 15502



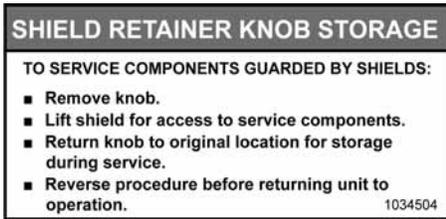
5 - PN 18868



7 - Serial Number Plate



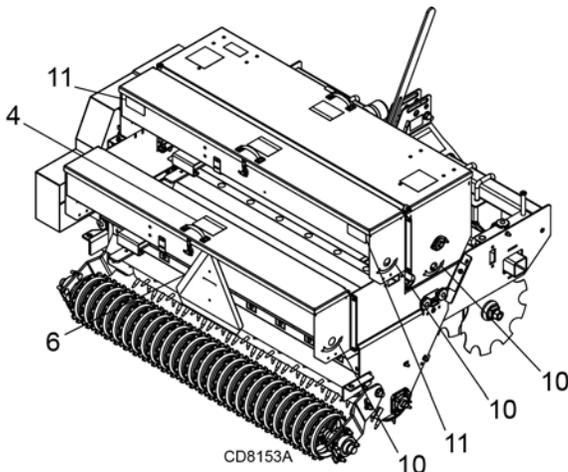
8 - PN 1034504



9 - PN 1041910



10 - PN W5669

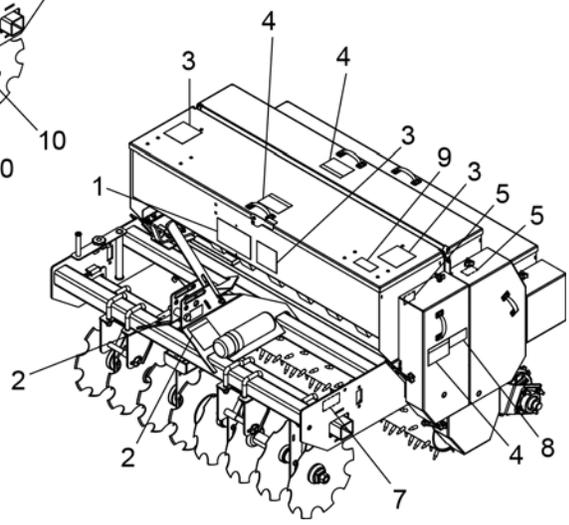


CD8153A

6 - PN 24611 Slow Moving Vehicle

11 - PN 20106 Red Reflector
2 x 4.5 (48 & 60 Seeders)

PN 57123 Red Reflector
2 x 9 (72 & 84 Seeders)



BE CAREFUL!

Use a clean, damp cloth to clean safety decals.

Avoid spraying too close to decals when using a pressure washer; high-pressure water can enter through very small scratches or under edges of decals causing them to peel or come off.

Replacement safety decals can be ordered free from your Woods dealer. To locate your nearest dealer, check the Dealer Locator at www.WoodsEquipment.com, or in the United States and Canada call 1-800-319-6637.

(Safety Decals continued on next page)



SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Replace Immediately If Damaged!



(Safety Decals continued from previous page)

1 - PN 55121

WARNING	
	<p>FALLING OFF CAN RESULT IN BEING RUN OVER.</p> <ul style="list-style-type: none"> ■ Tractor must be equipped with ROPS (or ROPS CAB) and seat belt. Keep foldable ROPS systems in “locked up” position at all times. ■ Buckle Up! Keep seat belt securely fastened. ■ Allow no riders.
	<p>RAISED IMPLEMENT CAN DROP AND CRUSH.</p> <ul style="list-style-type: none"> ■ Never go underneath raised implement which can drop from equipment or tractor 3-point hitch hydraulic leak down, hydraulic system failures, movement of control levers or mechanical linkage failures. ■ Service work does not require going underneath implement. Read manual instructions. <p>FALLING OFF OR GOING UNDERNEATH IMPLEMENT CAN RESULT IN SERIOUS INJURY OR DEATH.</p>

55121-C

3 - PN 55122

WARNING
<p>TO AVOID SERIOUS INJURY OR DEATH:</p> <ul style="list-style-type: none"> ■ Read Operator's Manual before operating, servicing or repairing equipment. Follow all safety rules and instructions. (Manuals are available from dealer or call 1-800-319-6637.) ■ Operate from tractor seat only. ■ Lower equipment to ground, stop engine, remove key and set brake before dismounting tractor. ■ Never allow children or untrained persons to operate equipment. ■ Never allow riders. ■ Keep bystanders away from equipment during operation. ■ Keep all shields in place and in good condition. ■ Do not transport towed or semi-mounted units over 20 mph. <p style="text-align: center;">FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.</p>

55122-D

2 - PN 1003751

WARNING
<p>CRUSHING AND PINCHING HAZARD</p> <ul style="list-style-type: none"> ■ Be extremely careful handling various parts of the machine. They are heavy and hands, fingers, feet, and other body parts could be crushed or pinched between tractor and implement. ■ Operate tractor controls from tractor seat only. ■ Do not stand between tractor and implement when tractor is in gear. ■ Make sure parking brake is engaged before going between tractor and implement. ■ Stand clear of machine while in operation or when it is being raised or lowered. <p style="text-align: center;">FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH.</p>

1003751-A

OPERATION

The operator is responsible for the safe operation of this seeder. The operator must be properly trained. Operators should be familiar with the equipment, the tractor, and all safety practices before starting operation. Read the safety rules and safety decals on page 5 through page 8.

Recommended tractor ground speed is from 2 to 5 mph.

WARNING

- Power unit must be equipped with Roll Over Protection System (ROPS) or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS system in “locked up” position at all times.

- Never allow children or untrained persons to operate equipment.

- Keep bystanders away from equipment.

- Keep hands, feet, hair, and clothing away from equipment while engine is running. Stay clear of all moving parts.

CAUTION

- Stop power unit and equipment immediately upon striking an obstruction. Turn off engine, set parking brake, remove key, inspect, and repair any damage before resuming operation.

- Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.

SEEDER GROUND TOOL OPERATION

The Food Plot Seeder is an excellent primary seeder, food plot and conservation seeder. It is equipped with a disc tool, cultipacker or spiked drive roller and trailing cultipacker. The seed boxes can be disengaged so that the ground tools can prepare the optimal seed bed with multiple passes, if necessary. The front disc tool can be used to overturn weeds, loosen soil, mix dry and moist soils, and incorporate pre-applied fertilizer to the ground. The cultipacker levels the soil, helps disperse the seed when broadcast planting, creates seed to soil contact and creates ridges/valleys for moisture reten-

tion. The spiked roller aerates the soil, creates pockets for moisture, and places seed on the seedbed with seed/soil contact.

Front Disc

The front disc tool can prepare a seedbed without prior use of a separate disc or tillage tool. When the discs are straight, the seeder creates little soil disturbance. When the discs are angled fully backward, the seeder creates maximum soil disturbance and the seedbed can usually be prepared in one or two passes. The disc has four angled positions to provide an array of soil penetration depths and seedbed preparation.

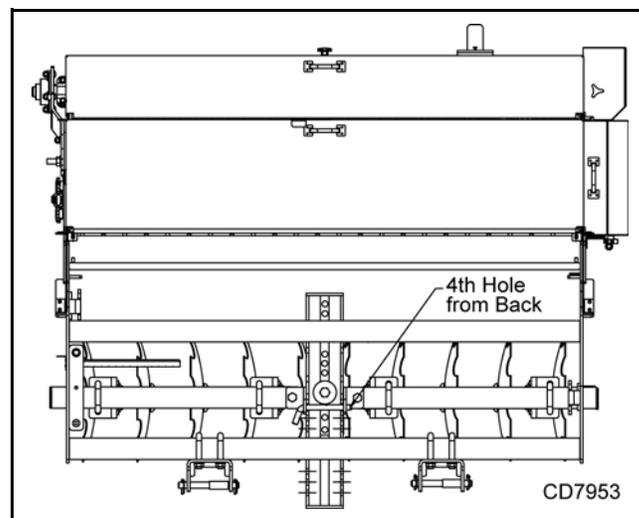


Figure 1. Disc in Straight Position (mast plates hidden for picture clarity) (72" Seeder Shown)

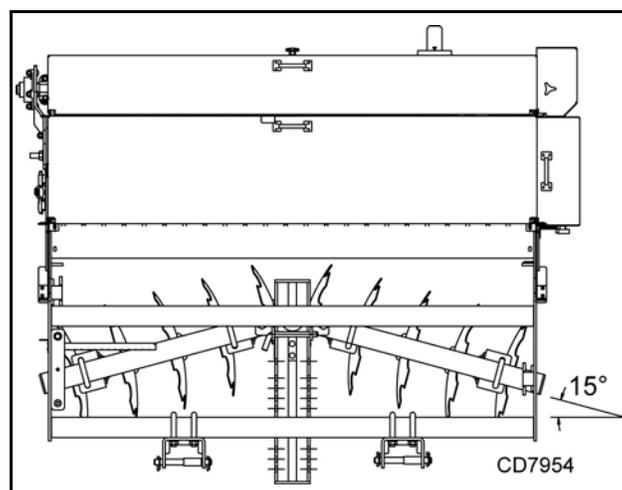


Figure 2. Disc in Angled Position (mast plates hidden for picture clarity) (72" Seeder Shown)

Chain Drive Disconnect

The Food Plot Seeder seed boxes can be engaged or disengaged so that any one seed box or all seed boxes can be operative or inoperative. See Figure 3 and Figure 19 for disconnect locations. It is not recommended to run the plastic seed cup assemblies without seed being metered.

It may be necessary to make several passes with the ground engaging tools before planting seed. Disengaging the seed box chain drive will allow the soil bed to be prepared without planting seed or running the plastic seed cup assemblies in a dry state.

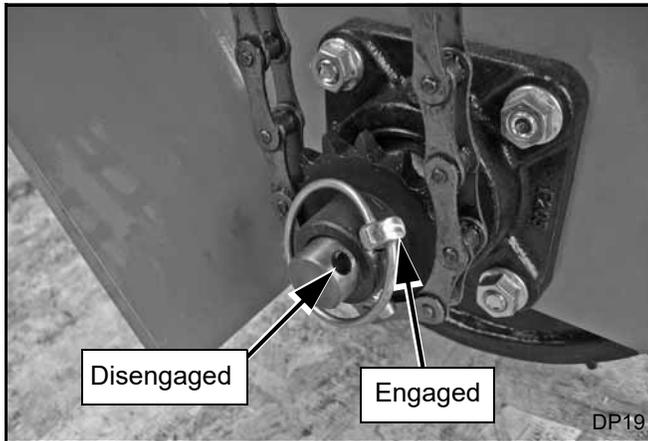


Figure 3. Chain Drive Disconnect

Drive Roller

The Food Plot Seeder comes with either a spiked or cultipacker drive roller.

The spiked tooth roller aerates the soil, creates pockets for moisture and places seed in the seedbed with seed/soil contact.

The drive cultipacker firms and presses soil kicked up by the front disc blades. This creates a uniform seedbed with the soil firmed for ensuring proper seed germination. See Figure 10.

Operation

The power for operating the seeder comes from contact between the seeder drive roller and the ground.

IMPORTANT

■ **Do not operate seeder in reverse. Operating seeder in reverse may result in damage to seed boxes and chain drive system.**

Know how to stop the tractor and seeder quickly in an emergency.

Survey the area to be worked and remove any obstructions that may affect the performance of the equipment.

Tractor Stability

WARNING

■ **A minimum 20% of tractor and equipment weight must be on the tractor front wheels when attachments are in transport position. Without this weight, front tractor wheels could raise up resulting in loss of steering. The weight may be attained with front wheel weights, ballast in tires, front tractor weights or front loader. Weigh the tractor and equipment. Do not estimate.**

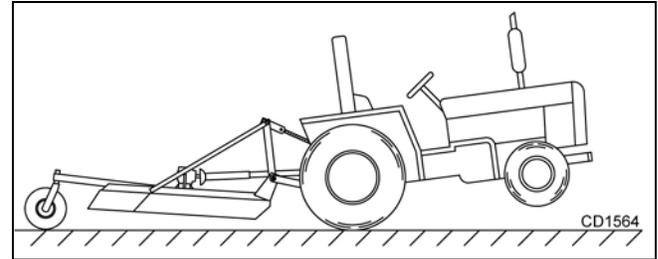


Figure 4. Tractor Stability

ATTACHING SEEDER TO TRACTOR

NOTE: The Food Plot Seeder is designed for use on Category I and II, 3-point hitch tractors. See page 4 for specifications.

1. Attach the tractor's lower lift arms to the seeder and secure with mounting pins and klik pins. See Figure 5 and Figure 6.
2. Attach the tractor's top link to the mast plates of the seeder. For controlled depth of tillage, use the fixed-pin location above the quick hitch bushing. See Figure 5 and Figure 6.
3. To enable the seeder to follow the contours of uneven ground, install the tractor's top link in the long slot in the top of the mast plates. For proper float (up and down) the top link pin should be centered in the slot (recommended for beginners).
4. For quick hitch use, install the available quick hitch bushings. The seeder will not float with a quick hitch installed.
5. Adjust the lower lift arm anti-sway device to prevent excessive side-to-side movement of the seeder.

NOTE: The seeder can be operated in a float or fixed 3-point hitch position. For beginning usage, the float position is recommended. See Figure 5.

NOTE: An optional quick hitch bushing kit, P/N 1038791 is available.

NOTE: When using CAT II hitch fixed top link hole, remove quick hitch bushing to prevent tractor top link from bending.

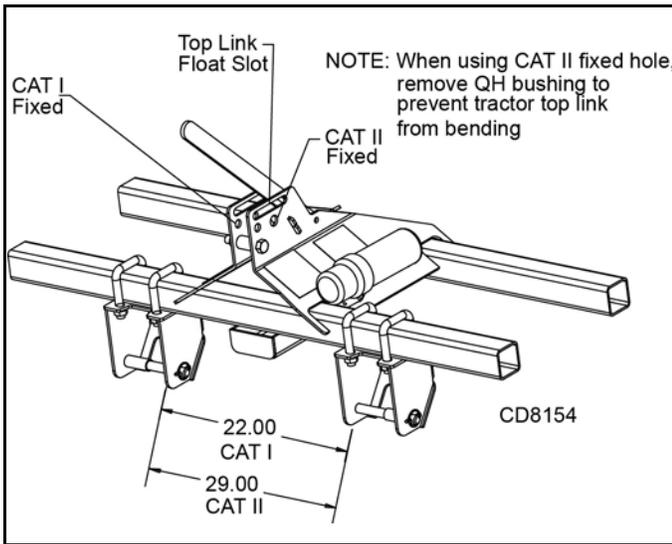


Figure 5. Hitch

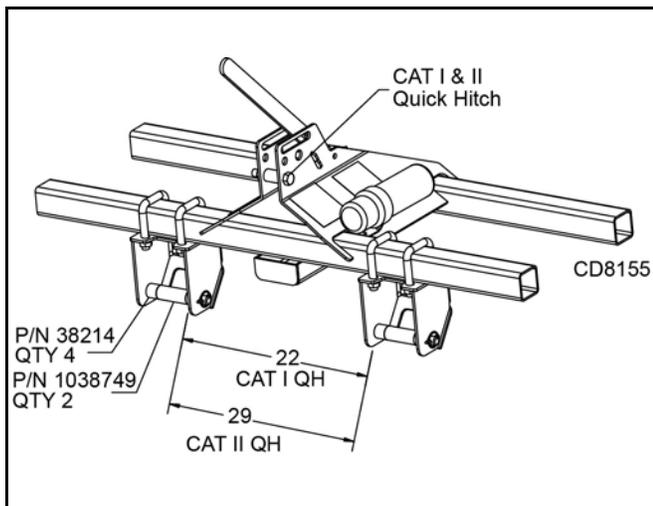


Figure 6. Quick Hitch - CAT I and CAT II

Adjust Front Disc Angle

1. Position tractor and seeder on level surface.
2. Raise seeder slightly off the ground.
3. Stop engine and set parking brake.
4. Remove bent pin and hair pin clip from front of seeder. (See Figure 7).
5. Raise the adjustment handle and pivot it to the next adjustment hole. Move handle forward. The front disc will start to angle backward. Continue this process until front disc has desired angle and holes align between frame rail and disc slide weldment.

See specification chart on page 4 for available angles.

6. Install bent pin and hair pin clip to secure front disc into position.
7. Reverse this procedure to move the front disc back into normal position.

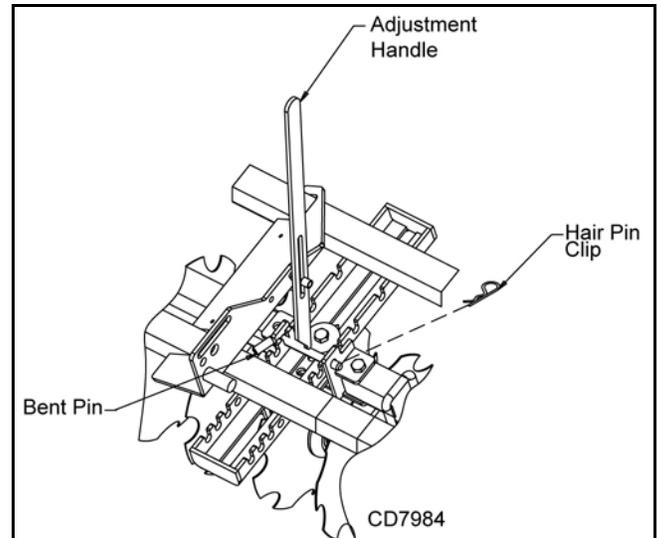


Figure 7. Disc Handle Adjustment (mast plate hidden for picture clarity)

SEEDING OPERATION

The Food Plot Seeder is capable of planting a wide variety of seeds over a wide range of seeding rates. The seeder is available with up to three different seed boxes. To determine which seed box is best for seeding, consider the planting depth, seed rate, size of seed, and shape of seed.

The Primary seed box has a fluted roller seed cup with an adjustable concave. The seed cup is capable of planting large seeds including corn, soybeans, grass seeds, and other small seeds. The seed cup metering is adjustable with a common shaft and lever. As the seed shaft is moved axially more or less of the fluted seed roller is exposed, changing the seed metering. See Figure 14. The concave will need to be opened as the size of the seed increases. Opening the concave further will also increase the seed rate. Seed from the Primary seed box is dropped in front of the cultipacker drive roller. The roller then pushes the seed and soil down creating a firm seed bed with optimal seed to soil contact.

The Primary seed box is equipped with row units consisting of PVC tubes and guides. The PVC tubes are aligned with the disc gang.

NOTE: The 48" seeder is equipped with seven seed cups and eight discs. The PVC tubes may be realigned for the desired row positioning.

Block off plates, see Figure 8, come with the seeder to increase row width and reduce seeding rate. Place the block off plate over the seed cup hole as shown. The shape of the plate creates a tight fit.

NOTE: When installing the block off plates, use a hammer to center the agitator shaft roll pins to prevent interference.

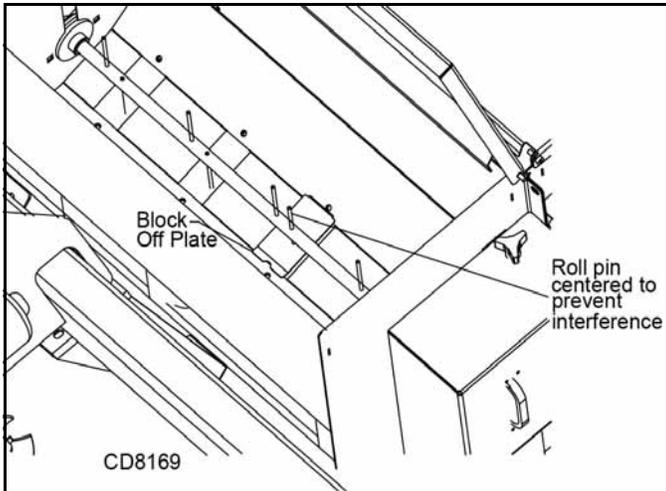


Figure 8. Block Off Plates

The Legume seed box has a small seed cup with adjustable fluted roller. The lever and shaft are adjustable similarly to the Primary seed box. See Figure 15. The Legume seed box is ideal for planting alfalfa, clover, forbes, rape and other small seeds. The seed meter tubes attached to the Legume box can divert seed to the front transition tray for a deeper planting depth or to the rear transition tray for shallower depths. When moving the middle PVC tubes to the rear tray, bend the tabs down 90° and place the tube as shown in Figure 18.

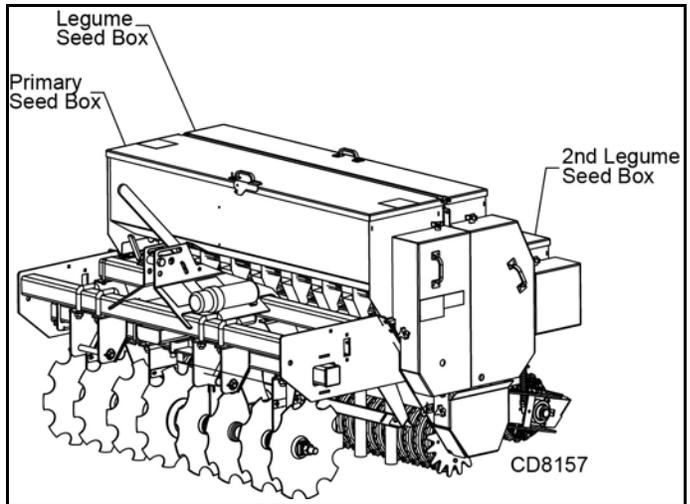


Figure 9. Seed boxes

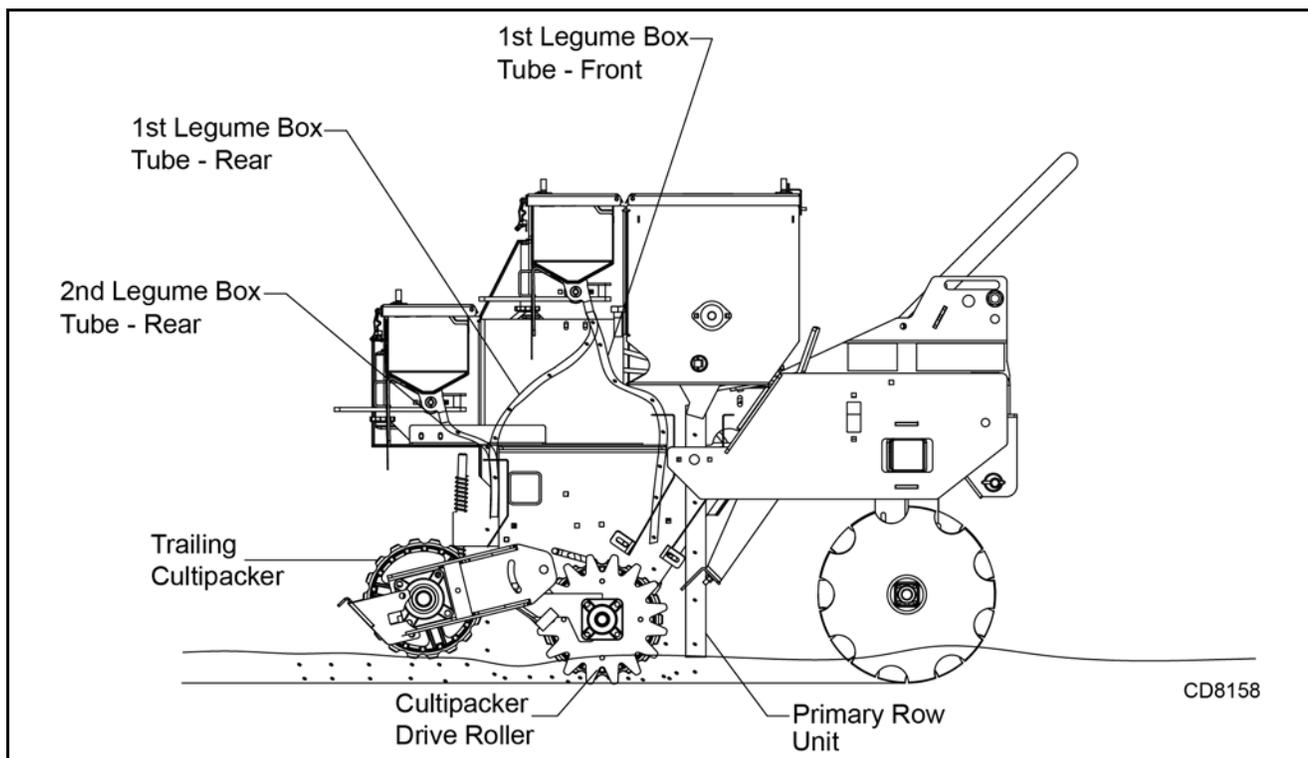


Figure 10. Seeding Operation

Filling the Seed Box

1. Calibrate seeder and set seed cup rate adjustment and concaves to the correct position. Start with the seed cup at a fully closed position and open the seed cup to the desired fluted roller opening.

NOTICE: The seed cup can be opened further with seed, but closing the seed cup or concave when full of seed could result in seed cup damage. If the seed cup must be restricted with seed in the seed box, place a block off plate or a piece of cardboard over the seed cup opening and remove seed in the seed cup by opening the concave or rotating the seed shaft and then closing the seed cup.

2. Open the seed box cover and rotate the brace to hold the cover up while filling the seed box. Place brace point in the cover spill guard notch. See Figure 11.
3. Place seed in the seed box.
4. Lift brace and rotate to storage position. Close seed cover and engage cover latch.

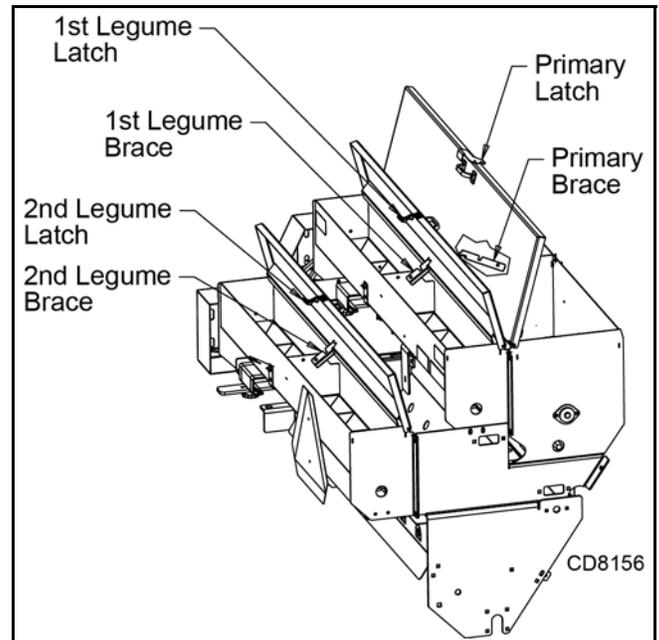


Figure 11. Primary and Legume Braces and Latches

SEED RATE CHARTS

Food Plot Seeder			Cool Season Seed Meter Opening (in)														
			1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	1-1/8	1-1/4	1-3/8	1-1/2	1-5/8	1-3/4	1-7/8
Seed Type	Recommended Seed Rate (lb/acre)		Approximate Seed Rate (lb/acre) Based on Meter Opening														
	Drill	Broadcast															
Brassica Blend	8	15	12	19	25	31	38	44	51	57	63	70	76	82	89	95	101
Buckwheat	40	60	0	12	19	26	33	40	47	53	60	67	74	81	88	95	102
Cereal Grain Mixture	70	80	0	0	17	21	26	30	34	38	42	46	50	54	58	62	66
Chicory Blend	2	4	4	11	18	25	32	39	46	53	60	67	74	81	87	94	101
Chufa	30	40	0	0	0	21	34	47	60	73	86	99	112	125	138	151	164
Corn (Round)	8	15	0	0	6	21	35	50	64	79	94	108	123	137	152	167	181
Corn (Flat)	8	15	0	0	21	32	43	54	65	76	87	98	109	120	131	142	153
Cowpeas	20	40	0	28	36	45	54	63	71	80	89	97	106	115	124	132	141
Lablab Blend	20	30	0	0	18	27	37	47	56	66	76	85	95	105	114	124	134
Millet, Brown Top	10	20	0	9	14	19	24	29	34	39	45	50	55	60	65	70	75
Oats	65	95	0	0	19	26	32	39	45	52	58	65	71	78	84	91	97
Orchard Grass	10	20	2	6	11	16	21	25	30	35	39	44	49	54	58	63	68
Peas, Winter	60	85	0	14	26	38	50	62	74	86	98	109	121	133	145	157	169
Radish, Daikon	6	12	6	9	12	15	18	21	23	26	29	32	35	38	41	44	47
Sorghum (Milo)	4	10	0	19	27	34	42	50	58	66	74	82	89	97	105	113	121
Soybeans	50	80	2	18	33	48	64	79	94	110	125	140	156	171	187	202	217
Sugar Beets	6	10	2	5	8	10	13	16	19	22	24	27	30	33	36	38	41
Sunflower Blend	2	10	0	0	0	13	18	23	27	32	37	41	46	51	55	60	65
Triticale	45	100	0	16	24	33	41	49	58	66	74	82	91	99	107	116	124
Wheat, Winter	75	75	0	14	24	34	43	53	63	73	83	93	103	113	122	132	142
Vetch, Hairy	30	40	0	16	27	37	48	58	69	80	90	101	112	122	133	143	154

Overseeding should be done at 50% of the recommended seed rate

Use seed cup blockoff plates for row spacings at multiples of 7.5". This will reduce your seed rates by the percent of cups blocked.

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Food Plot Seeder			Legume Seed Meter Opening (in)									
Seed Type	Recommended Seed Rate (lb/acre)		1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	1-1/8	1-1/4
	Drill	Broadcast	Approximate Seed Rate (lb/acre) Based on Meter Opening									
Alfalfa	15	20	1	3	5	7	9	11	12	14	16	18
Birdsfoot Trefoil	5	10	1	4	7	9	12	15	18	20	23	26
Black-Eyed Susan	1	2	0	1	2	4	5	6	7	8	10	11
Brassicas	4	8	1	2	4	6	7	9	11	12	14	16
Cereal Grain Mixture	70	80	0	0	1	4	6	9	11	13	16	18
Chicory Blend	2	4	2	4	6	7	9	11	13	15	17	19
Clover, Red	4	6	2	4	7	9	12	14	17	19	22	24
Flaxseed	30	45	0	3	5	8	10	13	15	18	20	23
Kale, Siberian	7	12	1	3	6	8	10	12	15	17	19	21
Lespedeza	15	20	1	2	4	5	7	8	10	11	13	14
Millet, Brown Top	10	20	1	3	4	6	8	10	11	13	15	16
Radish, Daikon	6	12	1	3	5	7	10	12	14	16	18	20
Rapeseed	2	4	0	2	3	4	5	7	8	9	10	11
Sorghum (Milo)	4	10	0	5	8	11	14	17	20	22	25	28
Sugar Beets	6	10	1	3	5	7	9	11	13	15	17	19
Switchgrass	6	12	2	4	6	8	10	13	15	17	19	22
Timothy	10	15	1	3	5	7	8	10	12	14	16	17
Vetch, Hairy	30	40	0	4	7	9	12	15	18	20	23	26

Overseeding should be done at 50% of the recommended seed rate.

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Seed Rate Adjustment

Tractor speed and seed flow settings are critical for proper seed population. Use the calibration tray to adjust the seed cups for the desired seeding rate. Tractor speed (normally 2-5 mph) should be established so that uniform seed incorporation occurs with the action of the rollers.

Seed Rate

Adjust the flow control lever (Figure 12 and Figure 15) as needed for the seed being used and the population desired. To adjust, loosen the plastic knob, move to desired position and re-tighten the knob. 0 indicates a closed seed cup while 1-7/8 indicates a fully open Primary seed cup. 1-3/16 indicates a fully open Legume seed cup.



Figure 12. Primary Seed Rate Adjustment Lever

Before seeding an area, adjust the top link so that it is in the middle of the slot with the seeder on the ground.

NOTE: It is normal for the seeder to pitch forward at maximum disc angle when the tractor top link is in the slot.

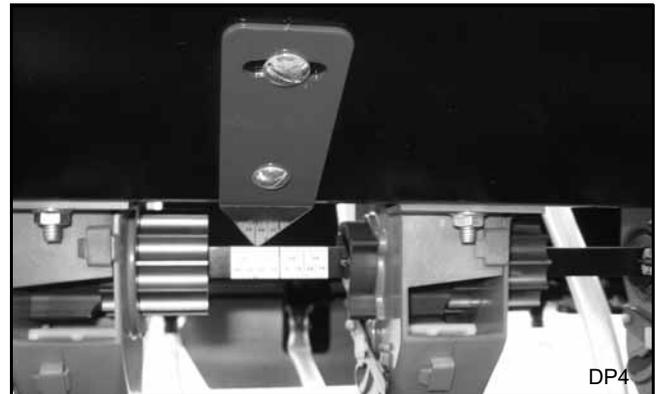


Figure 13. Primary Seed Pointer

Primary Seed Cup Concave Lever Adjustment

The Primary seed cup comes equipped with an adjustable concave to handle a wide variety of seed sizes. For small seeds, including grass seeds, the concave should be at the highest position. This position will prevent the loss of seed flowing through the seed cup. For larger seeds, including soybeans, the concave should be moved to a lower position. For minimum seed rates, the concave should only be opened to the size of the seed. This will prevent cracking of large seeds by the seed cup. Opening further will increase seed rates. See Figure 14.

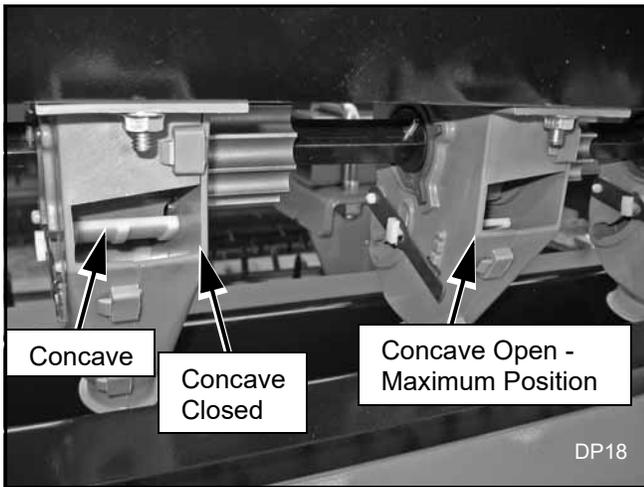


Figure 14. Primary Seed Cup Concave Adjustment

Legume Seed Cup

The front Legume seed box is equipped with PVC tubes to place the legume seed in the transition tray for the Primary seed box, ahead of the cultipacker drive roller. The front legume PVC tubes can be repositioned in the Legume transition tray for seed to be dropped ahead of the cultipacker. See Figure 18.

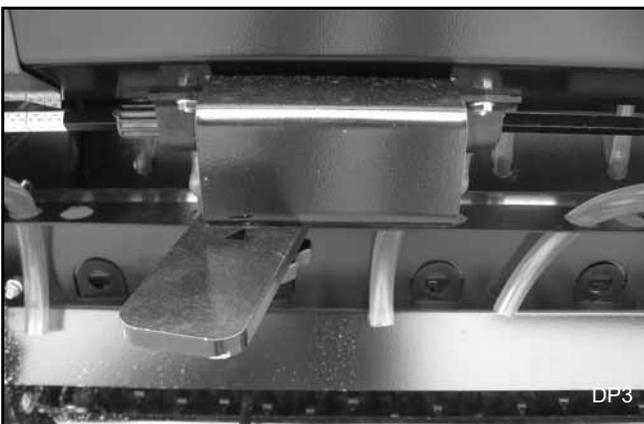


Figure 15. Legume Seed Rate Adjustment Lever

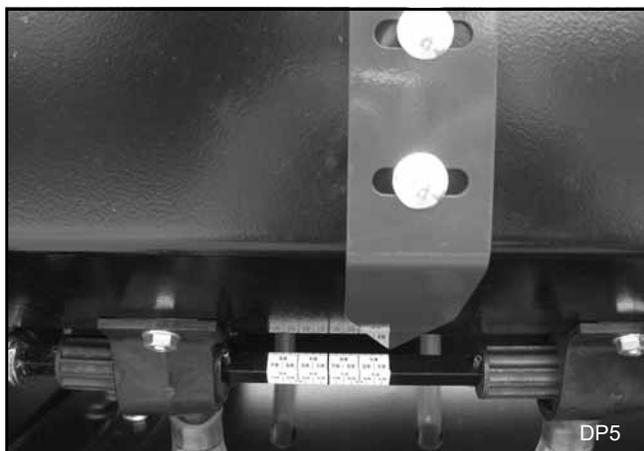


Figure 16. Legume Seed Pointer

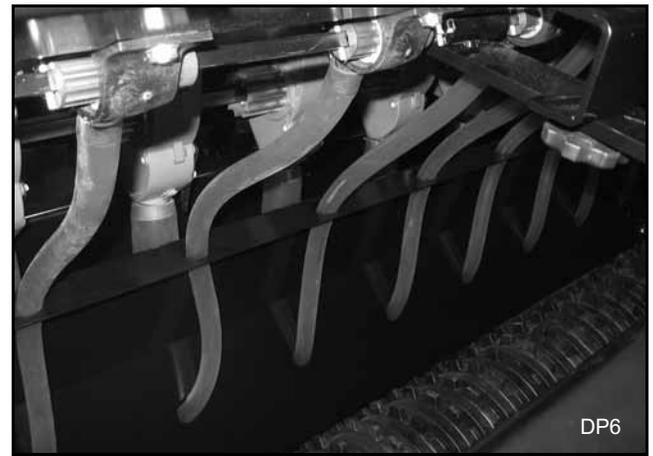


Figure 17. Legume Tubes - Front

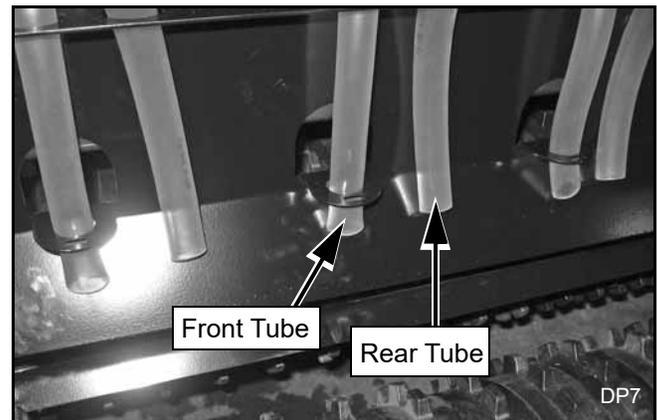


Figure 18. Legume Tube - Rear Tray

Operating Tips

IMPORTANT

■ Before closing down the cup (reducing rates), the operator should make certain that the cups are not full of seed. If cups are full of seed (especially small, round, hard seed), it may be necessary to cover the meter holes and run seeder a short distance to reduce level of seeds in meter. Failure to do so could result in damage to seed cup.

■ Do not operate seeder in reverse. Operating seeder in reverse may result in damage to seed boxes and chain drive system.

1. Do not allow dirt to build up on the roller sprockets. Clean sprockets and chain as needed. Excessive buildup of material can cause damage to the roller and idler shafts.
2. Always run the drive chain with some slack in the chain. An extremely tight chain can damage the roller shaft, the roller bearings, and the idler shaft and bearing.

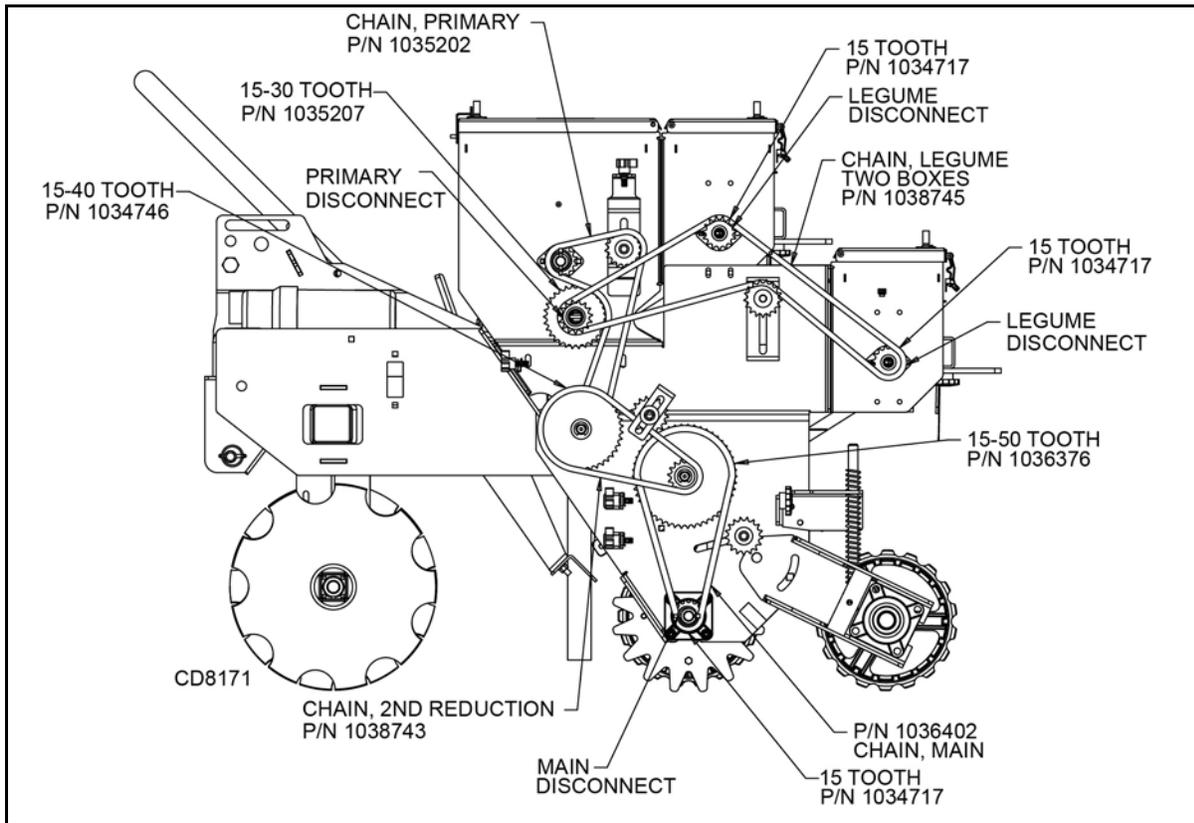


Figure 19.Chain Drive - Two Legume Boxes

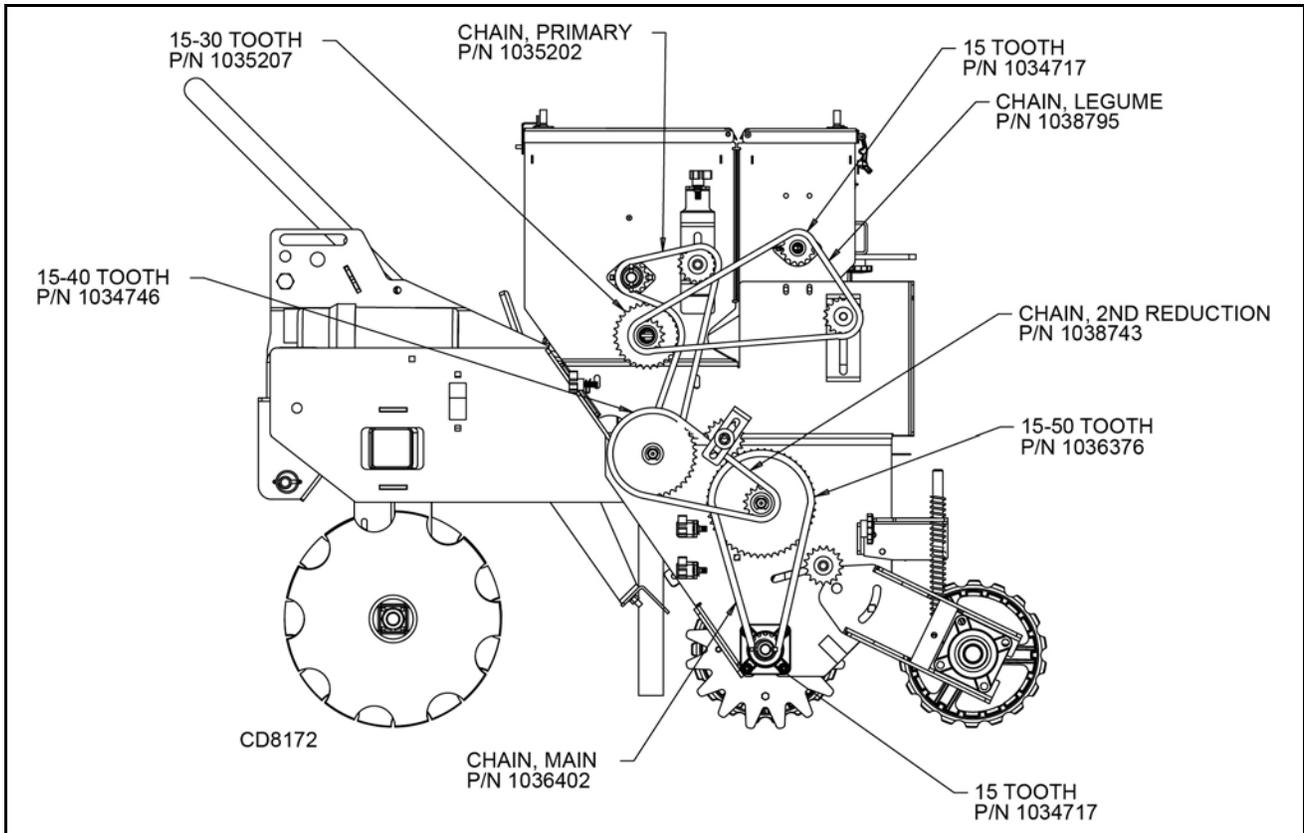


Figure 20.Chain Drive - Single Legume Box

Cultipacker

A cast iron or nylon trailing cultipacker with spring loaded down pressure is available as optional equipment with the Food Plot Seeder.

The trailing cultipacker is used to firm the seed bed for small seeds and increase seed-to-soil contact. The cultipacker is equipped to operate through an inclusive angle of 37°. The nylon cultipacker spring system provides the down pressure needed for an optimized seedbed. When raising the seeder, the cultipacker will swing until it reaches its lower stop. When raising the seeder use a slow and steady motion to reduce the impact loading of the cultipacker on the frame stop. A slot and 1/2" hardware are provided to hold the cultipacker in a fixed position. To achieve a raised position, move the cultipacker into a ditch or trailer ramp to assist in lifting. Stop the engine of the power unit and then tighten the cultipacker retainer to keep the cultipacker "raised."

Calibration Tray

An optional calibration tray is available to assist in adjusting the seed cups for the desired seeding rate. The calibration tray can be used with the seeder in the stationary position or as it is pulled over a short distance of the seedbed. See Figure 21.

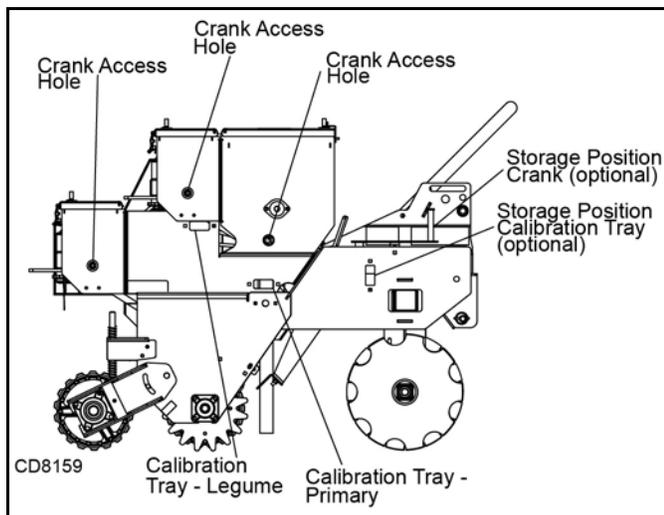


Figure 21. Calibration Tray

Stationary Calibration Procedure - Legume and Primary Seed Boxes

Equipment

1. One or two pounds of sample seed.
2. Optional calibration tray.
3. One scale capable of measuring ounces or hundredths of a pound.

Procedure

1. Position tractor and seeder on a level surface.
2. Adjust seed meter to closed position if applicable.
3. Stop engine and set parking brake.
4. Disconnect seed box from seeder chain drive by removing pin from seed box driven sprocket (Primary or Legume). See Figure 19.
5. Place seed over two seed meters closest to right end of seeder.
6. Remove optional calibration tray (34 cu. in. capacity) from storage location. Install tray in designated collection slot and tighten against frame with two plastic nuts. Remove small PVC tubes from two right most seed cups. For primary seed box, place tray or can at bottom of PVC tubes, or remove PVC tubes from primary seed cups.
7. Open seed cups to desired position (refer to chart for estimate) and lock into place.
8. Use optional crank or a 12-pt socket and turn Primary seed cup shaft or Legume seed cup shaft counter-clockwise. See stationary calibration chart on page 18 for number of shaft turns. (12-pt -3/4" or 19 mm socket fits over primary seed cup shaft. 12-pt 12 mm socket fits over Legume seed cup shaft)
9. Carefully remove calibration tray to retrieve collected seed. Weigh seed and use formula to determine seed rate. See page 18.
10. If seed rate is not correct, adjust seed cup openings and repeat steps 7 through 9.
11. Return calibration tray and crank to storage positions when finished. Reattach PVC tubes to seed cups.

Mobile Calibration Procedure - All Seed Boxes

Equipment

1. One or two pounds of sample seed.
2. Optional calibration tray.
3. One scale capable of measuring ounces or hundredths of a pound.

Procedure

1. Position tractor and seeder on a level surface.
2. Adjust seed meter to closed position if applicable.
3. Place seed over two seed meters closest to right end of seeder.
4. Make sure the seed box being calibrated is connected to chain drive. Disconnect other seed boxes by removing pin from seed box driven sprocket.

5. For first legume seed box, remove small PVC seed tubes from two right most seed cups. For primary seed box, remove large PVC tubes or collect seed at bottom of PVC tubes with a can. For second legume seed box, collect seed at bottom of PVC tubes with a can.
6. Remove optional calibration tray (34 cu. in. capacity) from storage location. Install tray in designated collection slot and tighten against frame with two plastic nuts.
7. Open seed cups to desired position (refer to chart for estimate) and lock into place.
8. Lower seeder to the ground and travel 100 feet.
9. Turn off engine and set parking brake.
10. Carefully remove calibration tray to retrieve collected seed. Weigh seed and use formula to determine seed rate.
11. If seed rate is not correct, adjust seed cup openings and repeat steps 6 through 9.
12. Return calibration tray to storage position when finished. Reattach PVC tubes to seed cups.

CALIBRATION FORMULA

Stationary Calibration Chart

No. of Turns to simulate traveling 100 ft with 2 seed meters

	1 st Reduction	2 nd Reduction	3 rd Reduction	Primary Seed Shaft Turns	Legume Seed Shaft Turns	Middle Drive Roller
Food Plot Seed Drive	15-50	15-40	15-30	2.1	2.1	Nylon
Food Plot Seed Drive	15-50	15-40	15-30	2.5	2.5	Spiked

Multiply weight of seed captured during calibration (in pounds) by 373.4.

Example: .15 lbs collected with 2.1 turns of seed cup

.15 lbs x 373.4 = 56 lbs / acre

NOTE: Overlapping, primary seed cup concave position, and rough terrain/fast travel speeds will impact seed metering accuracy.

Conversion for grams to pounds:

453.6 grams / 1 pound **OR**

.0022 pounds / 1 gram

Conversion for ounces to pounds:

16 ounces / 1 pound **OR**

.0625 pounds / 1 ounce

PRE-OPERATION CHECK LIST

(OWNER'S RESPONSIBILITY)

___ Review and follow all safety rules and safety decal instructions on page 5 through page 8.

___ Check that equipment is properly and securely attached to tractor.

___ Check that all safety decals are installed and in good condition. Replace if damaged.

___ Do not allow riders.

___ Check that all hardware is properly installed and secured.

___ Check that shields and guards are properly installed and in good condition. Replace if damaged.

___ Check all lubrication points and grease as instructed in Lubrication Information, Figure 22.

___ Make sure tractor ROPS or ROPS cab and seat belt are in good condition. Keep seat belt securely fastened during operation.



OWNER SERVICE

The information in this section is written for operators who possess basic mechanical skills. If you need help, your Woods dealer has trained service technicians available. For your protection, read and follow the safety information in this manual.

WARNING

■ **NEVER GO UNDERNEATH EQUIPMENT.** Never place any part of the body underneath equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak-down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.

- Service work does not require going underneath implement.
- Read Operator's Manual for service instructions or have service performed by a qualified service center.

■ **Keep all persons away from operator control area while performing adjustments, service, or maintenance.**

■ **Before dismounting power unit or performing any service or maintenance, follow these steps: disengage power to equipment, lower the 3-point hitch and all raised components to the ground, operate valve levers to release any hydraulic pressure, set parking brake, stop engine, remove key, and unfasten seat belt.**

CAUTION

■ **Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.**

Tightening Cultipacker Wheel Assembly

1. Place cultipacker on level, dry surface, with the cultipacker cast iron wheels on the ground.
2. Loosen 1/2" flange nuts and bolts on cast iron end clamps.
3. Use a pry bar to tighten the wheels together.
4. Retighten the 1/2" flange nuts and bolts on the clamps.

Removing Cultipacker Shaft From Frame

1. Place cultipacker on level, dry surface, with the cultipacker cast iron wheels on the ground.
2. Loosen bearing set screws with 5/32" Allen wrench. Place a punch in the eccentric locking collar punch hole and tap the collar loose in the opposite direction of shaft operation.
3. Remove 1/2" flange lock nuts and bolts from bearing assembly. Repair or replace cultipacker assembly as needed or refer to tightening cultipacker wheel assembly if applicable.
4. Match holes in cultipacker frame with holes in bearings and assemble with 1/2" bolts and flange lock nuts.
5. Lock eccentric bearing collars to cultipacker shaft by driving the collar in the direction of forward travel by placing a punch in the hole in the collar and driving it with a hammer. Secure collar to shaft with set screw.

LUBRICATION INFORMATION

Bearings with grease zerks	QTY	Sprockets with grease zerks	QTY
Drive Roller	2	Primary Box	2
Disc	0	Legume Box	2
Cultipacker	2	Seeder Frame	2
Seed Boxes	0		

1. Lubricate all bearing housings every 8 hours. Bearing housings are located on each end of rollers as indicated by grease fitting. See Figure 22.
2. Lubricate chains and sprockets (with grease zerks) every 50 hours or season whichever is shorter. The seed boxes are sealed with 3M 760 sealant. If a leak occurs in the seed box apply a 3/16" bead of 3M 760 sealant to eliminate any leaks. The tack free time is 30 minutes with full cure in 24 hours.
3. Clean fittings prior to lubrication. Do not let excessive grease build up around lubrication points.

NOTE: One pump of a good grade multi-purpose grease should be sufficient in most cases. Harsh or dry conditions may require more frequent lubrication.

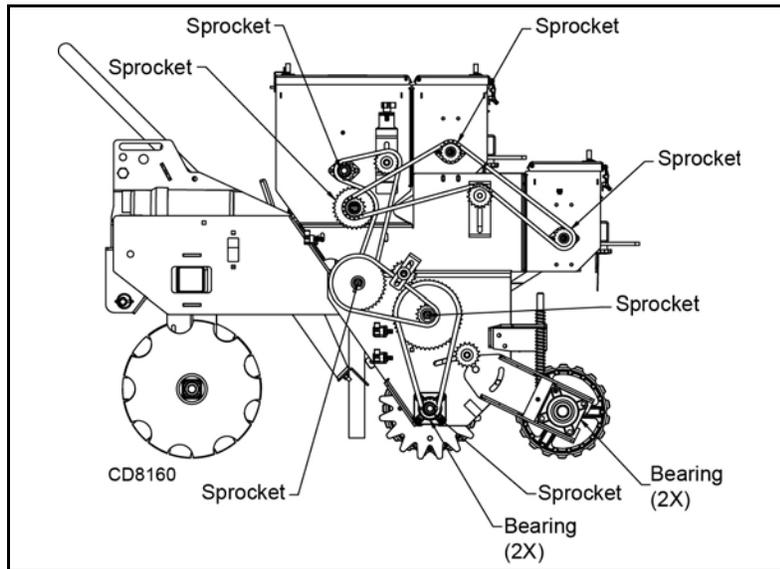


Figure 22. Lubrication Points

CLEANING

After Each Use

- Remove large debris such as clumps of dirt, grass, crop residue, etc. from machine.
- Inspect machine and replace worn or damaged parts.
- Replace any safety decals that are damaged, missing or not readable.

Periodically or Before Extended Storage

- Clean large debris such as clumps of dirt, grass, crop residue, etc. from machine.
- Remove the remainder using a low-pressure water spray.

1. Be careful when spraying near scratched or torn safety decals or near edges of decals as water spray can peel decal off surface.
2. Be careful when spraying near chipped or scratched paint as water spray can lift paint.
3. If a pressure washer is used, follow the advice of the pressure washer manufacturer.

- Inspect machine and replace worn or damaged parts.
- Sand down scratches and the edges of areas of missing paint and coat with Woods spray paint of matching color (purchase from your Woods dealer).
- Replace any safety decals that are missing or not readable (supplied free by your Woods dealer). See Safety Decals section for location drawing.



ASSEMBLY

DEALER SET-UP INSTRUCTIONS

Assembly of this equipment is the responsibility of the Woods dealer. It should be delivered to the owner completely assembled, lubricated, and adjusted for normal operating conditions.

In most cases the seeder is shipped completely assembled from the factory. The legume seed boxes, mud scrapers and quick hitch bushings are options that can be added to the seeder at a later time if desired.

OPTIONAL ACCESSORIES

Cultipacker Scraper Installation (For illustration, see page 34)

1. Place seeder on level surface with cultipacker on ground.

NOTE: If cultipacker is raised and being held by hardware in the slot of the cultipacker arm, be careful lowering cultipacker when loosening hardware. The cultipacker may move downward suddenly.

2. Remove two 3/8" rearmost nuts (nylon cultipacker) or topmost nuts (cast iron cultipacker) from cultipacker bearing on both sides. Install scraper mount brackets with slotted legs above bearing holes using the 3/8" bolts and nuts.
3. Install scraper bar on mounting brackets using 3/8" carriage bolts and lock nuts. The scraper may be placed on the inside of the bracket or outside of the bracket. Check that the scraper is aligned as well as possible across the whole width of the unit.

Center Drive Roller Scraper Installation (For illustration, see page 34 & 37)

1. Place seeder on level surface with cultipacker on ground.

NOTE: If cultipacker is raised and being held by hardware in the slot of the cultipacker arm, be careful lowering cultipacker when loosening hardware. The cultipacker may move downward suddenly.

2. Loosen two 3/8" rearmost nuts from center drive roller bearings, on both sides until nuts extend beyond bolt ends. Using a hammer, tap nuts and carriage bolts in allowing enough room for 7 gauge mounting brackets. Install scraper mount brackets between inside of frame and carriage bolt head

with slotted legs above bearing mount holes using the 3/8" nuts.

3. Install scraper bar on mounting brackets using 3/8" carriage bolts and lock nuts. The scraper may be placed on the inside of the bracket or outside of the bracket. Check that the scraper is aligned as well as possible across the whole width of the unit.

Disc Scraper Installation (For illustration, see page 34)

1. Place seeder on level surface.
2. Install short disc scrapers on bearing mounts using 3/8" carriage bolts and nuts in the slots provided in the bearing mount.

NOTE: Left and right hand scrapers to be used with respective disc gangs.

3. Install long disc scrapers using 3/8" U-bolt and nuts on the 3x3 disc gang tube. Position 1/4" away from disc blade to prevent drag.

NOTE: Left and right hand disc scrapers to be used with respective disc gangs.

Legume Seed Box (For illustration, see page 30)

1. Place seeder on level surface.
2. Stop engine and set parking brake.
3. Open primary seed box shield.
4. Remove SMV sign from primary seed box saving 1/4" hardware.
5. Install legume seed box on primary seed box frame.
6. Install 3/16" thick legume seed box braces on frame and legume box using 5/16" and 3/8" hardware. (second legume box only)
7. Remove chain from primary and legume seed box.
8. Install second legume drive chain around primary seed cup shaft, first legume seed box and second legume seed box if applicable over legume idler sprockets.
9. Install SMV sign on legume box with 1/4" hardware.
10. Install legume shield to primary box shield with 1/4" hardware.
11. Install seed cup PVC tubes on seed cups and insert into legume transition tray.

DEALER CHECK LISTS

PRE-DELIVERY CHECK LIST

(DEALER'S RESPONSIBILITY)

Inspect the equipment thoroughly after assembly to ensure it is set up properly before delivering it to the customer.

The following check lists are a reminder of points to inspect. Check off each item as it is found satisfactory or after proper adjustment is made.

- ___ Check that all safety decals are installed and in good condition. Replace if damaged.
- ___ Check that shields and guards are properly installed and in good condition. Replace if damaged.
- ___ Check all bolts to be sure they are properly torqued.
- ___ Check that all cotter pins and safety pins are properly installed. Replace if damaged.
- ___ Check and grease all lubrication points as identified in lubrication information on page 20.

DELIVERY CHECK LIST

(DEALER'S RESPONSIBILITY)

- ___ Show customer how to make adjustments and select proper ground speed.
- ___ Show customer the safe, proper procedures to be used when mounting, dismounting, and storing equipment.

- ___ Make customer aware of optional equipment available so that customer can make proper choices as required.
- ___ Instruct customer how to lubricate and explain importance of lubrication.
- ___ Point out the safety decals. Explain their meaning and the need to keep them in place and in good condition. Emphasize the increased safety hazards when instructions are not followed.
- ___ Present Operator's Manual and request that customer and all operators read it before operating equipment. Point out the manual safety rules, explain their meanings and emphasize the increased safety hazards that exist when safety rules are not followed.
- ___ Explain to customer the potential crushing hazards of going underneath raised equipment. Explain that blocking up prevents equipment dropping from hydraulic leak down, hydraulic system failures or mechanical component failures.
- ___ Point out all guards and shields. Explain their importance and the safety hazards that exist when not kept in place and in good condition.
- ___ Explain to customer that when transporting the unit on a public road to comply with all state and local lighting/marketing laws.

FOOD PLOT SEEDER

FPS48

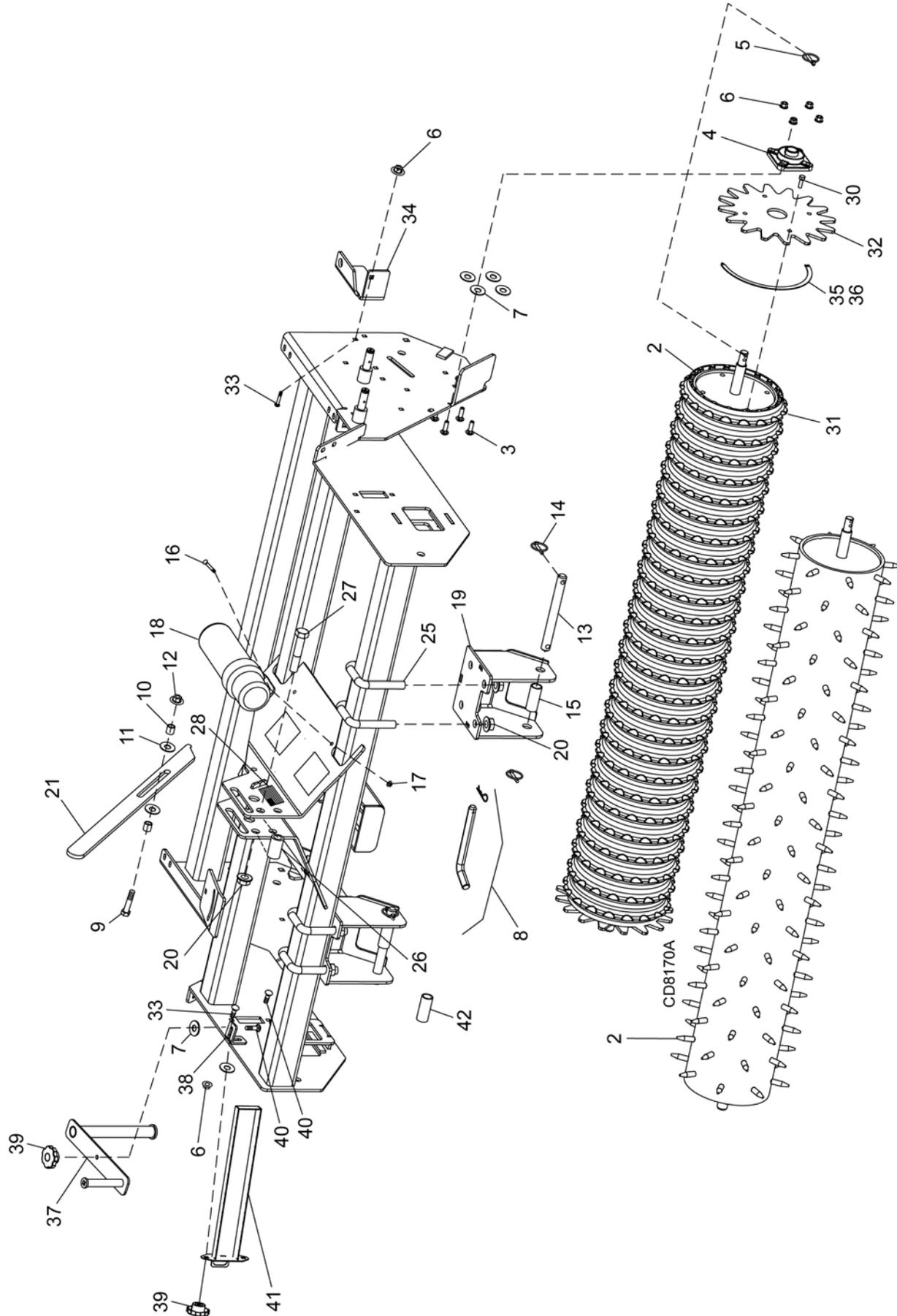
FPS60

FPS72

FPS84

Main Frame and Roller Assembly	24 - 25
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FPS48, FPS60, FPS72 & FPS84 MAIN FRAME & ROLLER ASSEMBLY



24 Parts

(Rev. 11/27/2017)
MAN1074 (9/15/2014)

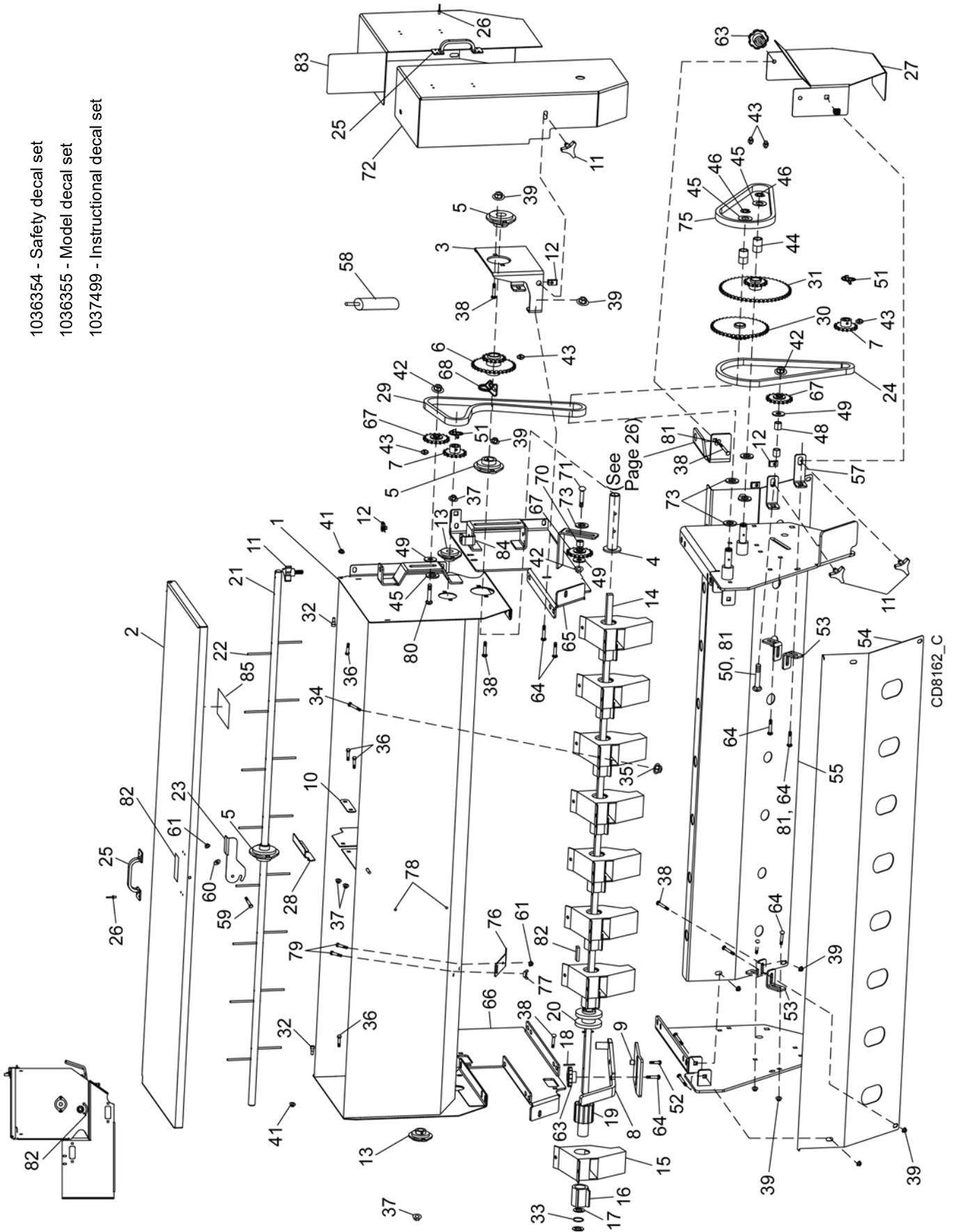
FPS48, FPS60, FPS72, FPS84 MAIN FRAME & ROLLER ASSEMBLY PARTS LIST

REF	FPS48	FPS60	FPS72	FPS84	QTY	DESCRIPTION
1	1	Frame, seeder
2	103865348RP	103865360RP	103865372RP	103865384RP	1	Drive roller, cultipacker
	-OR-	-OR-	-OR-	-OR-	-OR-	
2	103877648RP	103877660RP	103877672RP	103877684RP	1	Drive roller, spiked
3	W301117	W301117	W301117	W301117	8	3/8 NC x 1-3/4 carriage bolt ZP
4	20A920	20A920	20A920	20A920	2	1" bearing with housing
5	62043*	62043*	62043*	62043*	2	1/4 x 1-3/4 klik pin
6	14350*	14350*	14350*	14350*	34	3/8 NC flanged lock nut
7	1028375*	1028375*	1028375*	1028375*	3	3/8 push-on nut
8	1035646	1035646	1035646	1035646	1	3/4 x 6-1/4 pin, bent w/ clip
9	1637*	1637*	1637*	1637*	1	1/2 NC x 3-1/2 cap screw GR5 ZP
10	1035651RP	1035651RP	1035651RP	1035651RP	2	Sleeve, .56 x .75 x .75
11	3598*	3598*	3598*	3598*	2	1/2 SAE flat washer
12	11900*	11900*	11900*	11900*	1	1/2 NC flanged lock nut
13	HBL233	HBL233	HBL233	HBL233	2	.875 x 6.94 headless pin
14	27542*	27542*	27542*	27542*	4	7/16 x 11/32 klik pin
15	56598	56598	56598	56598	2	Sleeve, .885 x 1.125 x 2.62
16	24409*	24409*	24409*	24409*	2	5/16 NC x 1 carriage bolt ZP
17	14139*	14139*	14139*	14139*	2	5/16 NC flanged lock nut ZP
18	1003828	1003828	1003828	1003828	1	Manual tube
19	1038669	1038669	1038728	1038728	2	Mount, lower hitch
20	W302207*	W302207*	W302207*	W302207*	9	3/4 NC flanged lock nut
21	1035193RP	1035193RP	1035193RP	1035193RP	1	Handle
25	1034668	1034668	1034668	1034668	4	3/4 x 3.81 x 4.31 u-bolt
26	1002018	1002018	1002018	1002018	1	Sleeve, .81 x 1.25 x 2.12
27	31207*	31207*	31207*	31207*	1	3/4 NC x 4 cap screw GR5 ZP
30	1037467	1037467	1037467	1037467	8	3/8 NC x 1-1/2 button head screw
31	1038651P (21)	1038651P (26)	1038651P (31)	1038651P (36)		11-1/2" ring, cultipacker
32	1038654RP	1038654RP	1038654RP	1038654RP	2	End cap, star roller
33	20973*	20973*	20973*	20973*	3	3/8 NC x 1-1/4 carriage bolt GR5
34	103869225RP	103869225RP	103869225RP	103869225RP	1	Mount, cultipacker stop LH
35	1038734RP (6)	-----	-----	1038734RP (4)		Shim, cultipacker 14 GA
36	1038732RP (4)	-----	1038732RP (2)	1038732RP(4)		Shim, cultipacker 1/4
37	1036370	1036370	1036370	1036370	1	Crank, optional
38	1035232RP	1035232RP	1035232RP	1035232RP	1	Mount, transition tray, optional
39	66840	66840	66840	66840	2	3/8 NC knob, 3 prong
40	6697*	6697*	6697*	6697*	2	3/8 NC x 1 carriage bolt GR5 ZP
41	1035236RP	1035236RP	1035236RP	1035236RP	1	Calibration tray, optional
42	1038749	1038749	1038749	1038749	2	Sleeve, .91 x 1.44 x 3.50

* Standard hardware, obtain locally

FPS48, FPS60, FPS72, FPS84 PRIMARY SEED BOX ASSEMBLY

1036354 - Safety decal set
 1036355 - Model decal set
 1037499 - Instructional decal set



26 Parts

(Rev. 11/27/2017)
 MAN1074 (9/15/2014)

FPS48, FPS60, FPS72, FPS84 PRIMARY SEED BOX PARTS LIST

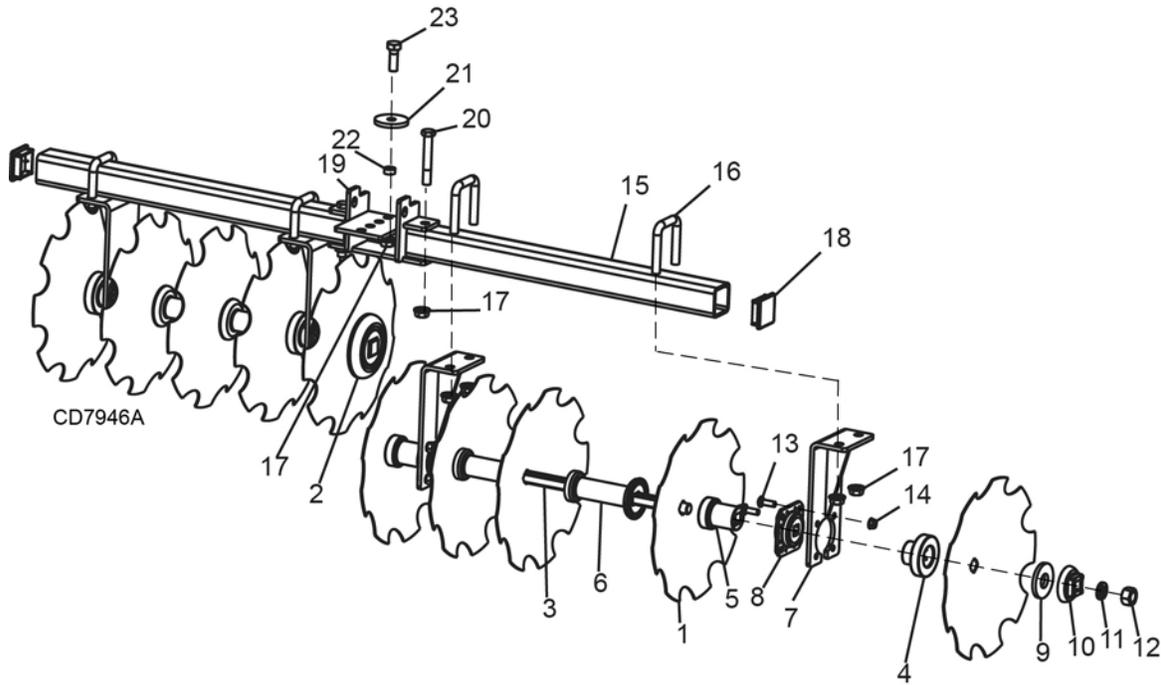
REF	FPS48	FPS60	FPS72	FPS84	QTY	DESCRIPTION
1	103877948RP	103877960RP	103877972RP	103877984RP	1	Seedbox, Primary
2	103569848RP	103569860RP	103569872RP	103569884RP	1	Cover, seedbox Primary
3	1038723RP	1038723RP	1038723RP	1038723RP	1	Mount, bearing Primary
4	1034739RP	1034739RP	1034739RP	1034739RP	1	Tube, transmission
5	1034694	1034694	1034694	1034694	3	1-1/8 bearing, flangette
6	1035207	1035207	1035207	1035207	1	Sprocket weldment
7	1034717	1034717	1034717	1034717	2	Sprocket
8	1038763RP	1038763RP	1038763RP	1038763RP	1	Lever, Primary
9	24516RP	24516RP	24516RP	24516RP	1	Sleeve, 3/8 x 1/2 x 27/64
10	1035197RP	1035197RP	1035197RP	1035197RP	1	Link
11	1033294	1033294	1033294	1033294	4	3/8 NC x 1.00 knob, 3 prong LG
12	1033293	1033293	1033293	1033293	4	3/8-16 spring nut, u-tapped
13	1034693	1034693	1034693	1034693	2	3/4 bearing, flangette
14	103869848RP	103869860RP	103869872RP	103869884RP	1	Shaft, Primary seedcup
15	1034754 (7)	1034754 (8)	1034754 (10)	1034754 (12)		Seedcup, large
16	1034755 (7)	1034755 (8)	1034755 (10)	1034755 (12)		Gate, seedcup, large
17	1034712RP (14)	1034712RP (16)	1034712RP (20)	1034712RP (24)		Washer, Primary seedcup
18	1035188 (16)	1035188 (18)	1035188 (22)	1035188 (26)		1/8 x 1-1/4 roll pin
19	1034756 (7)	1034756 (8)	1034756 (10)	1034756 (12)		Feed roll, large
20	1034747RP	1034747RP	1034747RP	1034747RP	1	Spool, shifter Primary
21	103872048RP	103568560RP	103568572RP	103568584RP	1	Shaft, Primary agitator
22	1034692 (14)	1034692 (16)	1034692 (20)	1034692 (24)		3/16 x 3-1/2 roll pin
23	1035672RP	1035672RP	1035672RP	1035672RP	1	Lever, Primary & Native
24	1036402	1036402	1036402	1036402	1	Chain, main, A2040, 40 link
25	20A635	20A635	20A635	20A635	2	Lid handle
26	1001978*	1001978*	1001978*	1001978*	8	3/16 blind rivet, No. 63
27	1038736RP	1038736RP	1038736RP	1038736RP	1	Shield, frame
28	1035694RP	1035694RP	1035694RP	1035694RP	1	Brace, Primary
29	1035202	1035202	1035202	1035202	1	Chain, Primary, A2040 46 link
30	1034746	1034746	1034746	1034746	1	Sprocket, weldment 15-40
31	1036376	1036376	1036376	1036376	1	Sprocket, weldment 15-50
32	1035225	1035225	1035225	1035225	2	1/4 NC x .75 x .31 shoulder bolt
33	1034698 (7)	1034698 (8)	1034698 (10)	1034698 (12)		Spring
34	78285 (14)	78285 (16)	78285 (20)	78285 (24)		5/16 NC x 3/4 YD screw, BTN HD
35	W73163* (14)	W73163* (16)	W73163* (20)	W73163* (24)		5/16 NC flanged whiz nut
36	24409*	24409*	24409*	24409*	6	5/16NC x 1 carriage bolt, ZP
37	14139*	14139*	14139*	14139*	6	5/16 NC flanged lock nut, HD ZP
38	6697*	6697*	6697*	6697*	31	3/8 NC x 1 carriage bolt, GR5 ZP
39	14350*	14350*	14350*	14350*	34	3/8 NC flanged lock nut
41	70065*	70065*	70065*	70065*	2	1/4 NC whiz nut
42	11900*	11900*	11900*	11900*	3	1/2 NC flanged lock nut
43	12296	12296	12296	12296	5	1/4-28 grease zerk
44	SU910	SU910	SU910	SU910	4	.75 x1.0 x.75 bearing needle
45	11036	11036	11036	11036	3	3/4 washer, 18 gauge
46	35139	35139	35139	35139	2	.050 x .750 retainer ring
48	1035651RP	1035651RP	1035651RP	1035651RP	2	Sleeve, .56 x .75 x .75
49	854RP*	854RP*	854RP*	854RP*	3	1/2 flat washer, ZP
50	27635*	27635*	27635*	27635*	1	1/2 NC x 3-1/2 carriage bolt
51	62043*	62043*	62043*	62043*	2	1/4 x 1-3/4 klik pin
52	976*	976*	976*	976*	1	3/8 NC x 1-1/2 cap screw GR5 ZP
53	1035232RP	1035232RP	1035232RP	1035232RP	4	Mount, transition tray
54	103873148RP	103873160RP	103873172RP	103873184RP	1	Seed tray, front
55	103873348RP	103873360RP	103873372RP	103873384RP	1	Seed tray, rear

(Primary Seed Box Parts List Continued on Page 28)

FPS48, FPS60, FPS72, FPS84 PRIMARY SEED BOX PARTS LIST (CONTINUED)

REF	FPS48	FPS60	FPS72	FPS84	QTY	DESCRIPTION
57	1035677RP	1035677RP	1035677RP	1035677RP	2	Mount, frame shield
58	1035669A	1035669A	1035669A	1035669A	1	Sealant, 3M 760 hybrid black
59	W70067	W70067	W70067	W70067	1	.25-20 x .5 whiz bolt TRSS
60	5336*	5336*	5336*	5336*	1	1/4 flat washer, ZP
61	62521*	62521*	62521*	62521*	1	1/4 NC flanged lock nut
63	66840	66840	66840	66840	2	3/8 NC knob, 3 prong
64	20973*	20973*	20973*	20973*	7	3/8 NC x 1-1/4 carriage bolt GR5
65	1038707RP	1038707RP	1038707RP	1038707RP	1	Mount, seed box Primary LH
66	1038656RP	1038656RP	1038656RP	1038656RP	1	Mount, seed box Primary RH
67	1034753	1034753	1034753	1034753	2	Sprocket, idler w/ bearing
68	1035676	1035676	1035676	1035676	1	1/4 x 1-3/4 lock pin
70	72628	72628	72628	72628	1	Sleeve, .5 x .75 x .56
71	64672*	64672*	64672*	64672*	1	1/2 NC x 2-1/4 carriage bolt
72	1038735RP	1038735RP	1038735RP	1038735RP	1	Shield, Primary seed box
73	2864* (5)	2864* (5)	2864* (3)	2864* (3)		3/4 flat washer, ZP
75	1038743	1038743	1038743	1038743	1	Chain, 2nd reduction 32 link
76	1038794RP	1038794RP	1038794RP	1038794RP	1	Pointer, Primary
77	21941*	21941*	21941*	21941*	1	1/4 NC wing nut, ZP
78	1038744	1038744	1038744	1038744	2	Plug, 1/4 plastic black
79	64812*	64812*	64812*	64812*	2	1/4 NC x 1/2 carriage bolt
80	12735*	12735*	12735*	12735*	1	1/2 NC x 1-3/4 carriage bolt
81	1028375*	1028375*	1028375*	1028375*	3	3/8 push-on bolt retainer
	FA418	FA418	FA418	FA418	NS	#40 single pitch conn link
	FA419	FA419	FA419	FA419	NS	#2040 double pitch conn link
	1002959	1002959	1002959	1002959	NS	#40 single pitch offset link
	1036354	1036354	1036354	1036354	NS	Decal set, safety
	1036355	1036355	1036355	1036355	NS	Decal set, model
82	1037499	1037499	1037499	1037499	NS	Decal set, instructional
83	1038755RP	1038755RP	1038755RP	1038755RP	1	Shield, Primary seed box only
84	1038695RP	1038695RP	1038695RP	1038695RP	1	Mount, shield
85	1037388	1037388	1037388	1037388	1	Decal, FPS Primary seed chart
					NS	Not shown
					*	Standard hardware, obtain locally

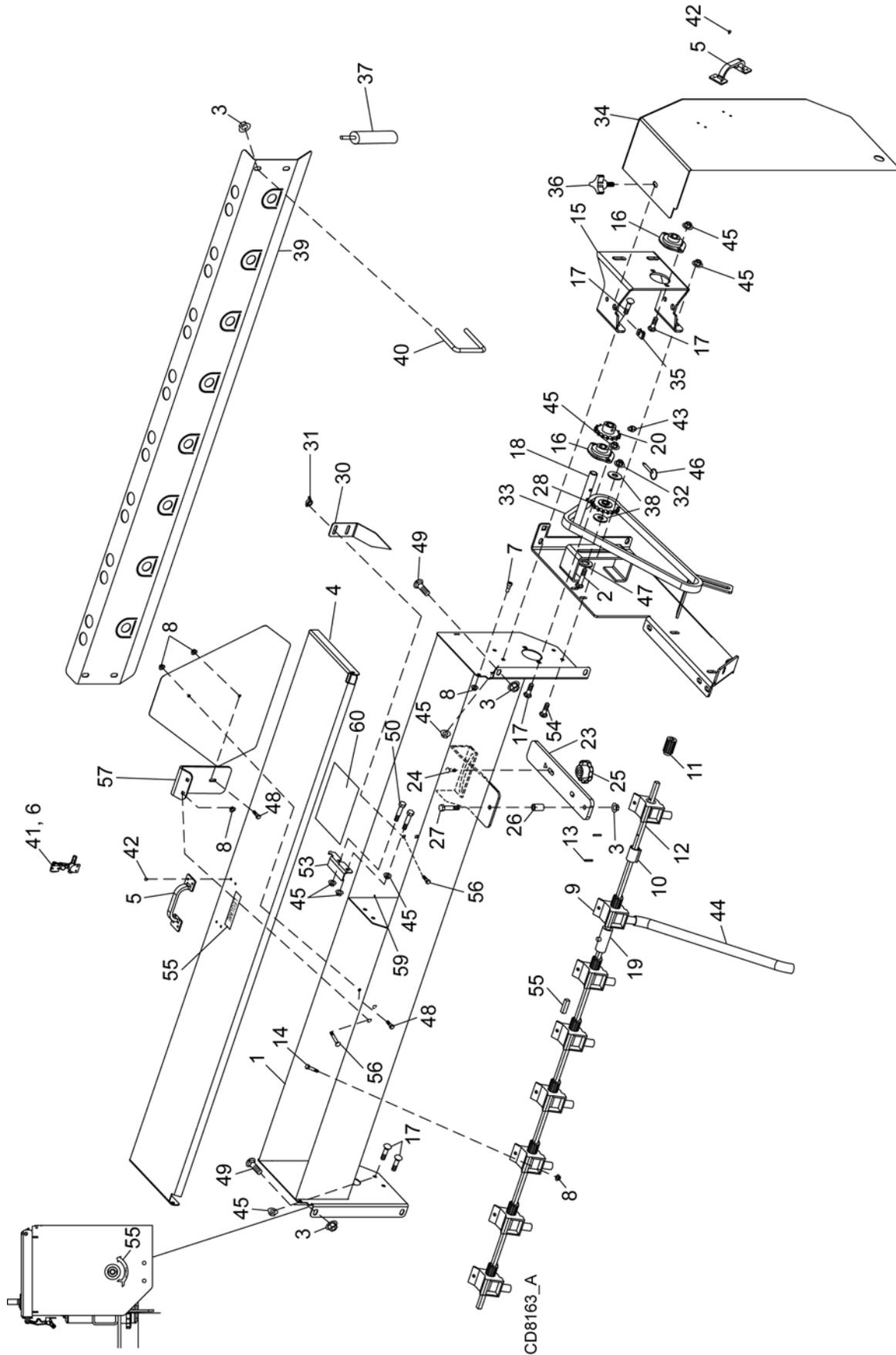
FPS48, FPS60, FPS72, FPS84 FRONT DISC OPTION



REF	FPS48	FPS60	FPS72	FPS84	QTY	DESCRIPTION
1	1038696 (8)	1038696 (8)	-----	-----	-----	16" notched blade (for FPS48 & FPS60)
1	-----	-----	1011274 (10)	1011274 (12)	-----	18" notched blade (for FPS72 & FPS84)
2	1011322	1011322	1011322	1011322	2	Washer, disc bumper
3	1011299	1011299	1011277	1011279	2	Axle, disc
4	1034764RP	1034764RP	1011324RP	1034764RP	4	Spool, spacer, 2-3/8 or 2
5	1034763RP	1034763RP	1011323RP	1034763RP	4	Spool, spacer, 3-5/8 or 3-1/4
6	1011349 (2)	1011349 (2)	1011349 (4)	1011349 (6)	-----	Spool, spacer 7-3/8
7	1038674RP	1038674RP	1034674RP	1034674RP	4	Disc mount bearing
8	1022500	1022500	1022500	1022500	4	1 SQ flanged bearing assembly
9	1022544RP (6)	1022544RP (6)	1022544RP (2)	1022544RP (8)	-----	1.41 x 3.50 x .375 flat washer
10	1022501	1022501	1022501	1022501	2	End cap washer, disc
11	3689*	3689*	3689*	3689*	2	1" standard lock washer
12	3132*	3132*	3132*	3132*	2	1 NC hex nut ZP
13	29893*	29893*	29893*	29893*	16	1/2 NC x 1-1/2 carriage bolt HT
14	11900*	11900*	11900*	11900*	16	1/2 NC flanged lock nut
15	103869748RP	103869760RP	103467172RP	103467184RP	2	Tube, 3 x 3 x .25 x XX.XX
16	1034668	1034668	1034668	1034668	4	3/4 x 3.81 x 4.31 u-bolt
17	W302207	W302207	W302207	W302207	11	3/4 NC flanged lock nut
18	1022507	1022507	1022507	1022507	2	3 x 3 cap, black plastic
19	1038701RP	1038701RP	1034701RP	1034701RP	1	Disc slide
20	12558*	12558	2376*	2376*	2	3/4 NC x 4-1/2 cap screw for FPS48 & FPS60; 3/4 NC x 5 cap screw for FPS72 & FPS84
21	1035673RP	1035673RP	1035673RP	1035673RP	1	.78 x 3.25 x .38 washer
22	1002943	1002943	1002943	1002943	1	Sleeve, .82 x 1.06 x .47
23	13759*	13759*	13759*	13759*	1	3/4 NC x 2-1/4 cap screw GR5 ZP

* Standard hardware, obtain locally

FPS1048, FPS1060, FPS1072, FPS1084 FIRST LEGUME SEED BOX OPTION (PART NO. 1038678XX)



30 Parts

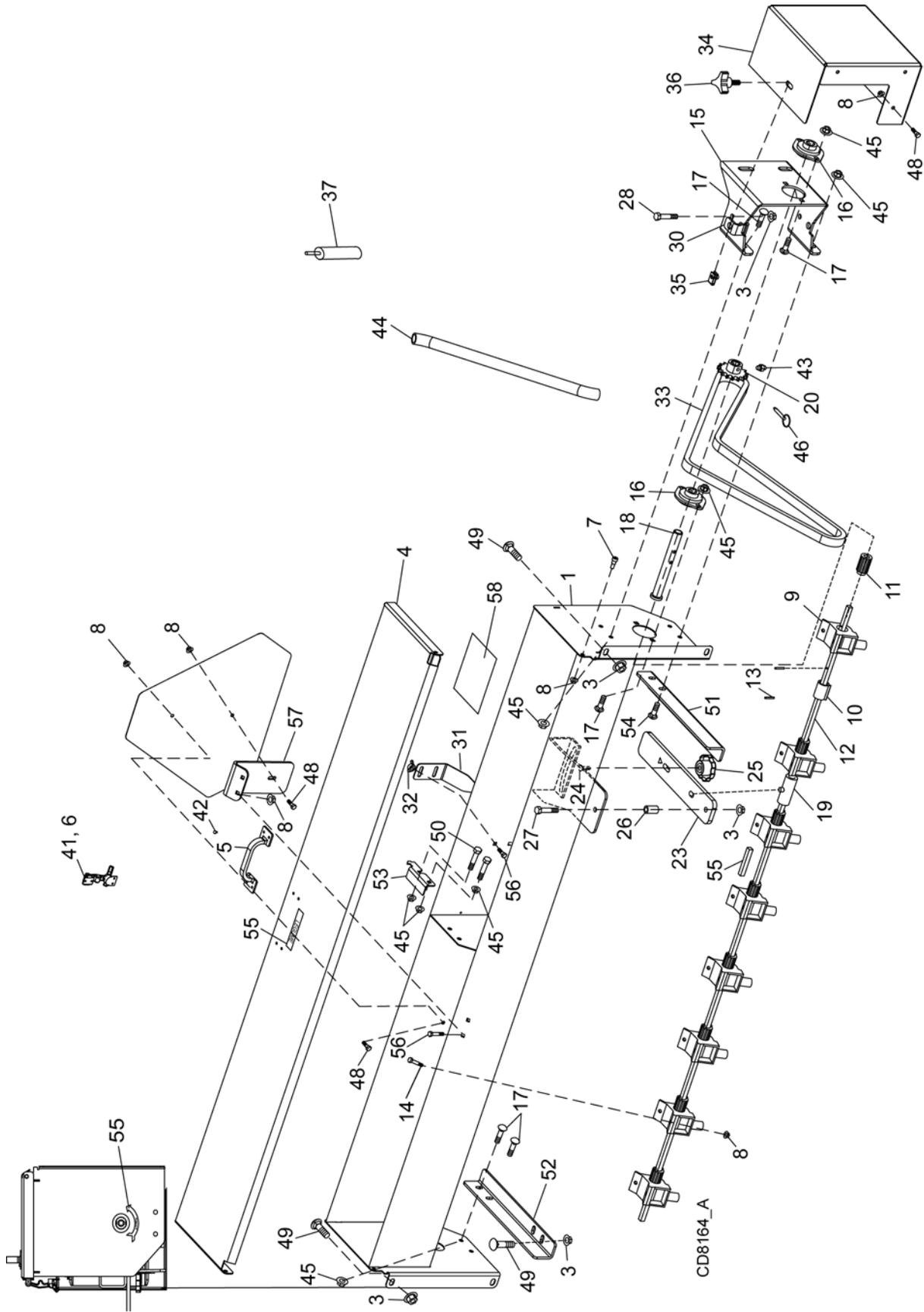
(Rev. 12/24/2015)
MAN1074 (9/15/2014)

FPS48, FPS60, FPS72, FPS84 FIRST LEGUME SEED BOX PARTS LIST (PART NO. 1038678XX)

REF	FPS48	FPS60	FPS72	FPS84	QTY	DESCRIPTION
1	103517848RP	103517860RP	103517872RP	103517884RP	1	Seedbox, Legume
2	12735*	12735*	12735*	12735*	1	1/2 NC x 1-3/4 carriage bolt
3	14350*	14350*	14350*	14350*	9	3/8 NC flanged lock nut
4	103569948RP	103569960RP	103569972RP	103569984RP	1	Cover, Legume seedbox
5	20A635	20A635	20A635	20A635	2	Lid, handle
6	1001994*	1001994*	1001994*	1001994*	4	1/8 No. 43 blind rivet
7	1035225	1035225	1035225	1035225	2	1/4NC x .75 x .31 shoulder bolt
8	W70065* (20)	W70065* (22)	W70065* (26)	W70065* (30)		1/4 NC whiz nut
9	1034695 (7)	1034695 (8)	1034695 (10)	1034695 (12)		Seedcup, small
10	1034696 (7)	1034696 (8)	1034696 (10)	1034696 (12)		Gate, seedcup, small
11	1034697 (7)	1034697 (8)	1034697 (10)	1034697 (12)		Feed roll, small
12	103518648RP	103518660RP	103518672RP	103518684RP	1	Shaft, seedcup Legume
13	1035187 (16)	1035187 (18)	1035187 (22)	1035187 (26)		1/8 x 7/8 roll pin
14	W70067 (14)	W70067 (16)	W70067 (20)	W70067 (24)		.25-20 x .5 whiz bolt TRSS/MR
15	1035195RP	1035195RP	1035195RP	1035195RP	1	Mount, bearing Legume
16	1034693	1034693	1034693	1034693	2	3/4 bearing, flangette
17	16148*	16148*	16148*	16148*	8	5/16NC x 3/4 carriage bolt ZP
18	1034727RP	1034727RP	1034727RP	1034727RP	1	Tube, transmission
19	1035625RP	1035625RP	1035625RP	1035625RP	1	Sleeve, shifter
20	1034717	1034717	1034717	1034717	1	Sprocket
23	1035215RP	1035215RP	1035215RP	1035215RP	1	Lever, shifter
24	20973*	20973*	20973*	20973*	1	3/8 NC x 1-1/4 carriage bolt GR5
25	66840	66840	66840	66840	1	3/8 NC knob, 3 prong
26	1035632RP	1035632RP	1035632RP	1035632RP	1	Sleeve, .39 x .63 x 1.06
27	300157*	300157*	300157*	300157*	1	3/8 NC x 2-1/4 cap screw GR5 ZP
28	1034753	1034753	1034753	1034753	1	Sprocket idler bearing
30	1038793RP	1038793RP	1038793RP	1038793RP	1	Pointer, Legume
31	21941*	21941*	21941*	21941*	2	1/4 NC wing nut, ZP
32	11900*	11900*	11900*	11900*	1	1/2 NC flanged lock nut
33	1038795	1038795	1038795	1038795	1	Chain, single Legume 42 link
34	1038739RP	1038739RP	1038739RP	1038739RP	1	Shield, Legume
35	1033293*	1033293*	1033293*	1033293*	1	3/8 - 16 spring nut u-tapped
36	1033294	1033294	1033294	1033294	1	3/8 NC x 1.00 knob, 3 prong
37	1035669A	1035669A	1035669A	1035669A	1	Sealant, 3M 760 hybrid black
38	854*	854*	854*	854*	2	1/2 flat washer, ZP
39	103874248	103874260	103874272	103874284	1	Seed tray, Legume
40	1035662	1035662	1035662	1035662	2	3/8 x 3.43 x 3.56 u-bolt
41	1001975	1001975	1001975	1001975	1	Flex draw latch
42	1001978*	1001978*	1001978*	1001978*	8	3/16 No. 63 blind rivet
43	12296	12296	12296	12296	1	1/4 28 straight fitting, 15/32L
44	1038718 (7)	1038718(8)	1038718 (10)	1038718 (12)		11/16 ID x 24 PVC tube
45	14139*	14139*	14139*	14139*	13	5/16 NC flanged lock nut HD ZP
46	1035244	1035244	1035244	1035244	1	1/4 x 1-1/5 pin, detent
47	2864*	2864*	2864*	2864*	1	3/4 flat washer, ZP
48	5337*	5337*	5337*	5337*	2	1/4 NC x 1/2 cap screw GR5
49	6697*	6697*	6697*	6697*	4	3/8 x 1 carriage bolt GR5 ZP
50	14562*	14562*	14562*	14562*	2	5/16 NC x 1 cap screw GR5
53	1035695RP	1035695RP	1035695RP	1035695RP	1	Brace, Legume
54	24409*	24409*	24409*	24409*	2	5/16 NC x 1 carriage bolt, ZP
55	1037499	1037499	1037499	1037499	1	Decal set, instructional
56	64812*	64812*	64812*	64812*	4	1/4 NC x 1/2 carriage bolt
57	1035229RP	1035229RP	1035229RP	1035229RP	1	SMV sign mount
59	1038744	1038744	1038744	1038744	2	Plug, 1/4 plastic black
60	1037389	1037389	1037389	1037389	1	Decal, FPS Legume seed chart

* Standard hardware, obtain locally

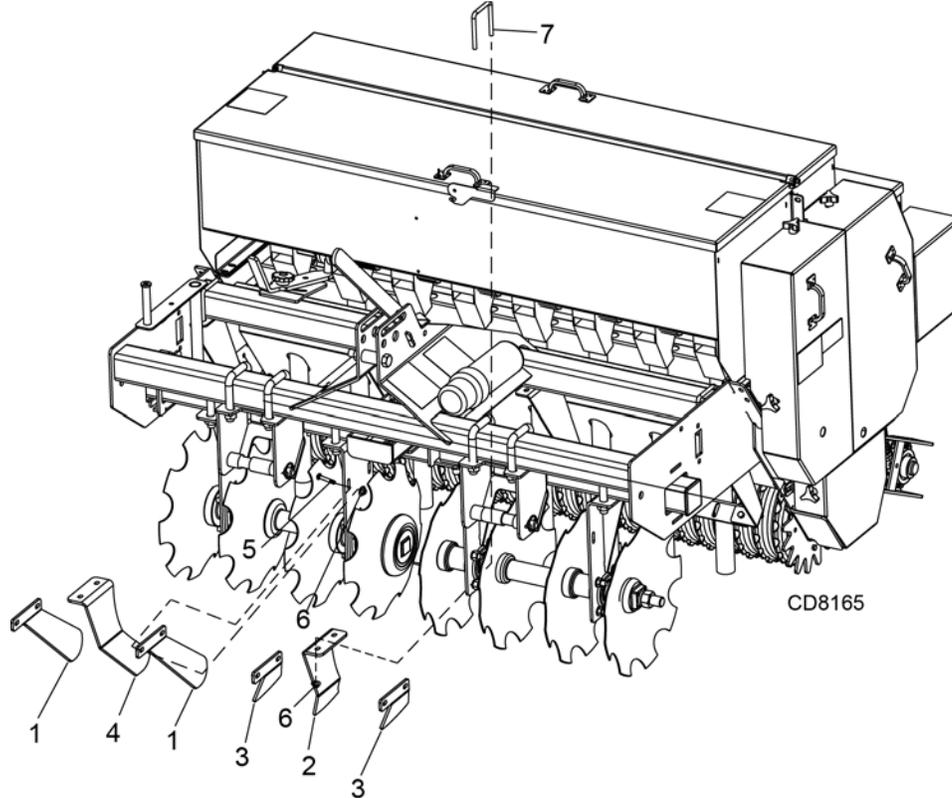
FPS48, FPS60, FPS72, FPS84 SECOND LEGUME SEED BOX OPTION (PART NO. 1038778XX)



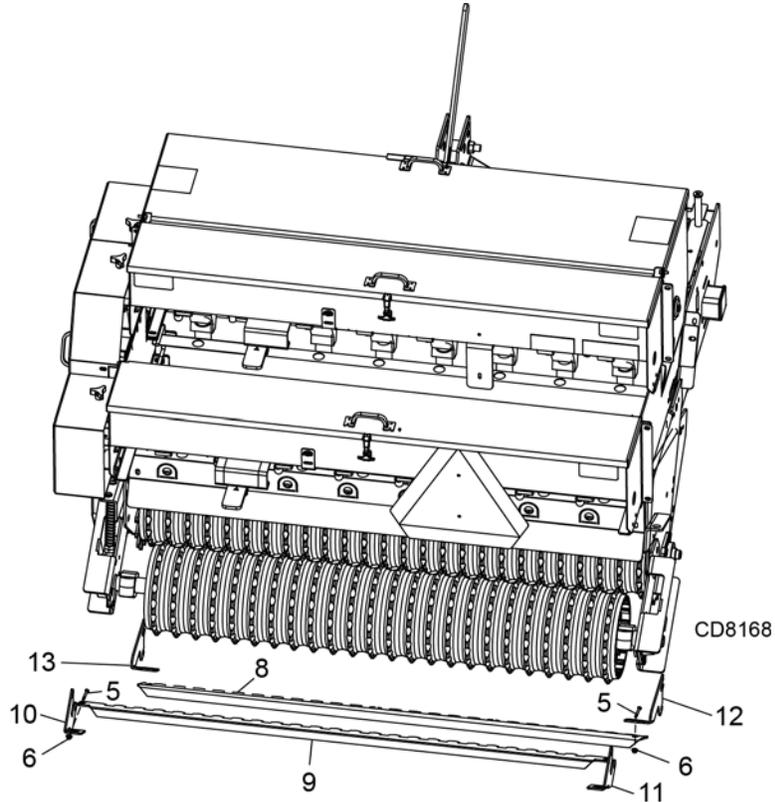
FPS48, FPS60, FPS72, FPS84 SECOND LEGUME SEED BOX PARTS LIST (PART NO. 1038778XX)

REF	FPS48	FPS60	FPS72	FPS84	QTY	DESCRIPTION
1	103517848RP	103517860RP	103517872RP	103517884RP	1	Seed box, Legume
3	14350*	14350*	14350*	14350*	10	3/8 NC flanged lock nut
4	103569948RP	103569960RP	103569972RP	103569984RP	1	Cover, Legume seed box
5	20A635	20A635	20A635	20A635	1	Lid, handle
6	1001994*	1001994*	1001994*	1001994*	4	1/8 No. 43 blind rivet
7	1035225	1035225	1035225	1035225	2	1/4NC x .75 x .31 shoulder bolt
8	W70065* (23)	W70065* (25)	W70065* (29)	W70065* (33)		1/4 NC whiz nut
9	1034695 (7)	1034695 (8)	1034695 (10)	1034695 (12)		Seedcup, small
10	1034696 (7)	1034696 (8)	1034696 (10)	1034696 (12)		Gate, seedcup, small
11	1034697 (7)	1034697 (8)	1034697 (10)	1034697 (12)		Feed roll, small
12	103518648RP	103518660RP	103518672RP	103518684RP	1	Shaft, seedcup legume
13	1035187 (16)	1035187 (18)	1035187 (22)	1035187 (26)		1/8 x 7/8 roll pin
14	W70067 (14)	W70067 (16)	W70067 (20)	W70067 (24)		.25-20 x .5 whiz bolt TRSS/MR
15	1035195RP	1035195RP	1035195RP	1035195RP	1	Mount, bearing legume
16	1034693	1034693	1034693	1034693	2	3/4 bearing, flangette
17	16148*	16148*	16148*	16148*	8	5/16NC x 3/4 carriage bolt ZP
18	1034727RP	1034727RP	1034727RP	1034727RP	1	Tube, transmission
19	1035625RP	1035625RP	1035625RP	1035625RP	1	Sleeve, shifter
20	1034717	1034717	1034717	1034717	1	Sprocket
23	1035215RP	1035215RP	1035215RP	1035215RP	1	Lever, shifter
24	20973*	20973*	20973*	20973*	1	3/8 NC x 1-1/4 carriage bolt GR5
25	66840	66840	66840	66840	1	3/8 NC knob, 3 prong
26	1035632RP	1035632RP	1035632RP	1035632RP	1	Sleeve, .39 x .63 x 1.06
27	W300157*	W300157*	W300157*	W300157*	1	3/8 NC x 2-1/4 cap screw GR5 ZP
28	12169*	12169*	12169*	12169*	1	3/8 NC x 1-1/4 cap screw GR5 ZP
30	1038695RP	1038695RP	1038695RP	1038695RP	1	Mount, shield Legume 2nd
31	1038793RP	1038793RP	1038793RP	1038793RP	1	Pointer, Legume
32	21941*	21941*	21941*	21941*	2	1/4 NC wing nut, ZP
33	1038745	1038745	1038745	1038745	1	Chain, double Legume 66 link
34	1038738RP	1038738RP	1038738RP	1038738RP	1	Shield, Legume, rear
35	1033293*	1033293*	1033293*	1033293*	1	3/8 - 16 spring nut u-tapped
36	1033294	1033294	1033294	1033294	1	3/8 NC x 1.00 knob, 3 prong
37	1035669A	1035669A	1035669A	1035669A	1	Sealant, 3M 760 hybrid black
41	1001975	1001975	1001975	1001975	1	Flex draw latch
42	1001978*	1001978*	1001978*	1001978*	4	3/16 No. 63 blind rivet
43	12296	12296	12296	12296	1	1/4 28 straight fitting, 15/32L
44	1038746RP (7)	1038746RP (8)	1038746RP (10)	1038746RP (12)		11/16 ID x 12 PVC tube
45	14139*	14139*	14139*	14139*	13	5/16 NC flanged lock nut HD ZP
46	1035244	1035244	1035244	1035244	1	1/4 x 1-1/5 pin, detent
48	5337*	5337*	5337*	5337*	2	1/4 NC x 1/2 cap screw GR5
49	6697*	6697*	6697*	6697*	8	3/8 x 1 carriage bolt GR5 ZP
50	14562*	14562*	14562*	14562*	2	5/16 NC x 1 cap screw GR5
51	1038787RP	1038787RP	1038787RP	1038787RP	1	Brace, Legume LH
52	1038788RP	1038788RP	1038788RP	1038788RP	1	Brace, Legume, RH
53	1035695RP	1035695RP	1035695RP	1035695RP	1	Brace, Legume
54	24409*	24409*	24409*	24409*	2	5/16 NC x 1 carriage bolt, ZP
55	1037499	1037499	1037499	1037499	1	Decal set, instructional
56	64812*	64812*	64812*	64812*	4	1/4 NC x 1/2 carriage bolt
57	1035229RP	1035229RP	1035229RP	1035229RP	1	SMV sign mount
	FA418	FA418	FA418	FA418	NS	#40 single pitch conn link
	FA419	FA419	FA419	FA419	NS	#2040 double pitch conn link
	1002959	1002959	1002959	1002959	NS	#40 single pitch offset link
58	1037389	1037389	1037389	1037389	1	Decal, FPS Legume seed chart
					NS	Not shown
					*	Standard hardware, obtain locally

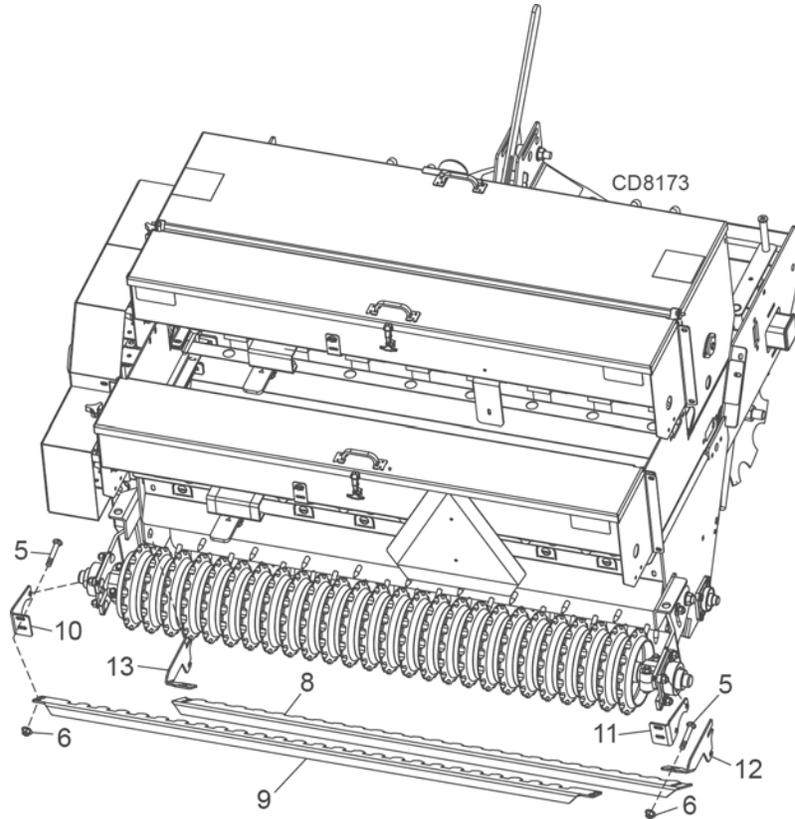
FPS48, FPS60, FPS72, FPS84 DISC SCRAPER OPTION (PART NO. 1036470)



**FPS48, FPS60, FPS72, FPS84 SCRAPER CULTIPACKER DRIVE ROLLER (PART NO. 1036471XX)
AND NYLON CULTIPACKER (PART NO. 1036421XX)**



**FPS48, FPS60, FPS72, FPS84 SPIKED DRIVE ROLLER (PART NO. 1036469XX)
AND CAST IRON CULTIPACKER SCRAPERS (PART NO. 1036420XX)**

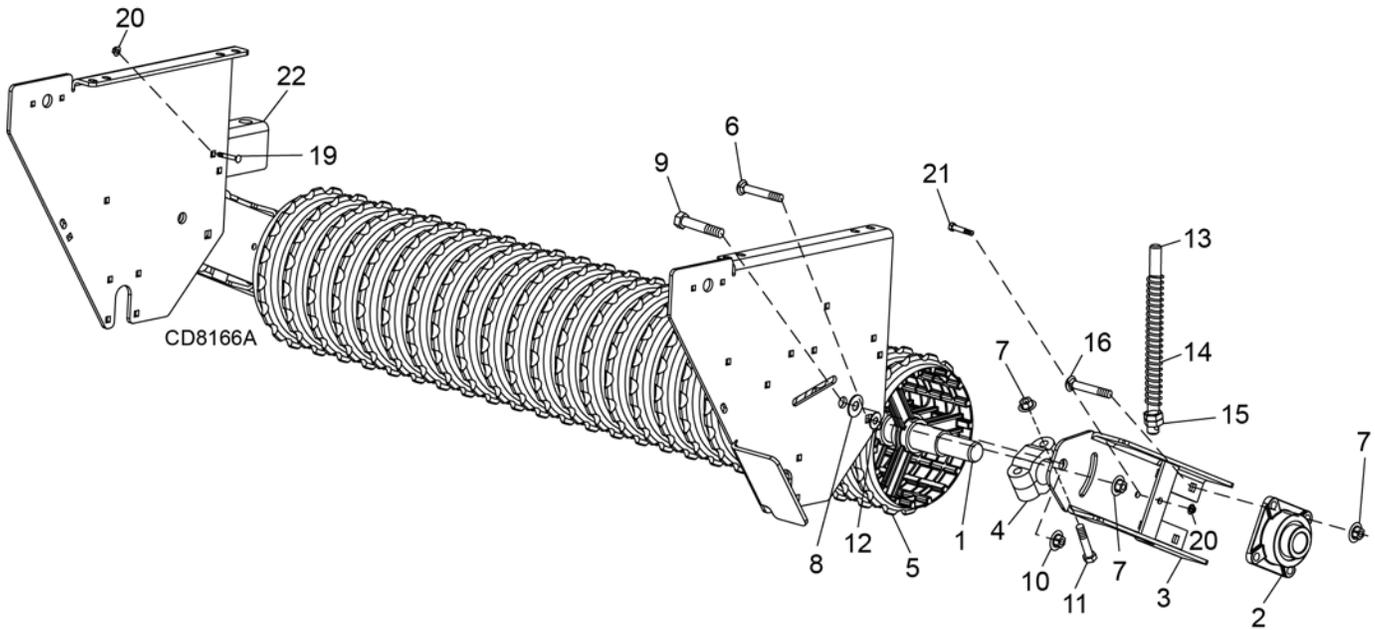


FPS48, FPS60, FPS72, FPS84 SCRAPER OPTION PARTS LIST

REF	FPS48	FPS60	FPS72	FPS84	QTY	DESCRIPTION
1	1038754RP	1038754RP	1038754RP	1038754RP	2	Scraper, disc mount RH
2	1038752RP (1)	1038752RP (1)	1038752RP (2)	1038752RP (3)		Scraper, disc link LH
3	1038751RP	1038751RP	1038751RP	1038751RP	2	Scraper, disc mount LH
4	1038753RP (1)	1038753RP (1)	1038753RP (2)	1038753RP (3)		Scraper, disc link RH
5	6697*	6697*	6697*	6697*	16	3/8 NC x 1 carriage bolt, GR5
6	14350* (20)	14350* (20)	14350* (24)	14350* (28)		3/8 NC flanged lock nut
7	1035662 (2)	1035662 (2)	1035662 (4)	1035662 (6)		U-bolt 3/8 x 3-7/16 x 3-5/8
8	103641848RP	103641860RP	103641872RP	103641884RP	1	Scraper, cultipacker drive roller
8	103642548RP	103642560RP	103642572RP	103642584RP	1	Scraper, studded drive roller
9	103879248RP	103879260RP	10387927RP	103879284RP	1	Scraper, cultipacker drive roller
9	103642648RP	103642660RP	103642672RP	103642684RP	1	Scraper, cultipacker cast iron
10	1038797RP	1038797RP	1038797RP	1038797RP	1	Mount, scraper cultipacker nylon LH
10	1036427RP	1036427RP	1036427RP	1036427RP	1	Mount, scraper cultipacker iron LH
11	1038798RP	1038798RP	1038798RP	1038798RP	1	Mount, scraper cultipacker nylon RH
11	1036428RP	1036428RP	1036428RP	1036428RP	1	Mount, scraper cultipacker iron RH
12	1036454RP	1036454RP	1036454RP	1036454RP	1	Mount, scraper drive roller RH
13	1036455RP	1036455RP	1036455RP	1036455RP	1	Mount, scraper drive roller LH

* Standard hardware, obtain locally

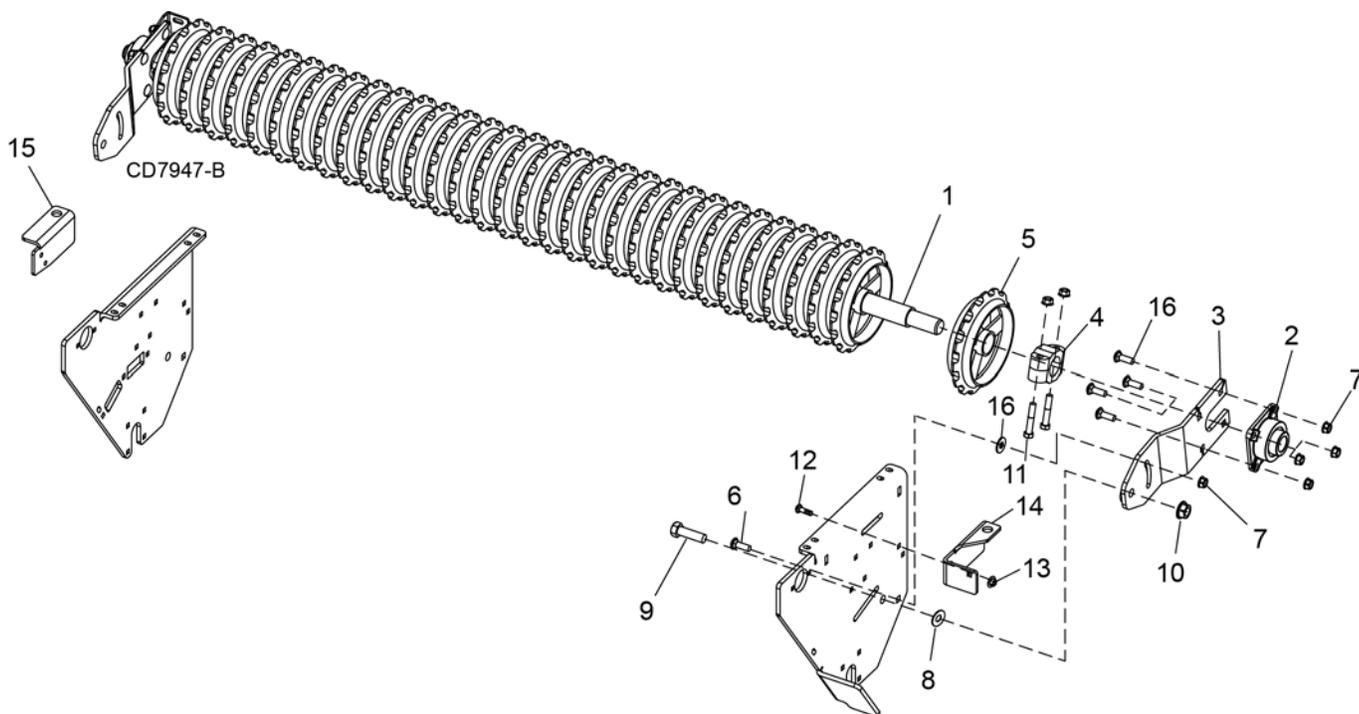
FPS48, FPS60, FPS72, FPS84 NYLON CULTIPACKER OPTION (PART NO. 1038777XX)



REF	FPS48	FPS60	FPS72	FPS84	QTY	DESCRIPTION
1	103878048RP	103878060RP	103878072RP	103878084RP	1	Shaft, cultipacker
2	1033740	1033740	1033740	1033740	2	1.38 flanged 4 bolt bearing
3	1038699RP	1038699RP	1038699RP	1038699RP	2	Arm, cultipacker
4	1034676	1034676	1034676	1034676	4	1-3/4 clamp
5	1038781P (20)	1038781P (25)	1038781P (30)	1038781P (35)		Cultipacker, plastic
6	12735*	12735*	12735*	12735*	2	1/2 NC x 1-3/4 carriage bolt HT
7	11900*	11900*	11900*	11900*	14	1/2 NC flanged lock nut
8	1257*	1257*	1257*	1257*	2	3/4 flat washer ZP
9	735*	735*	735*	735*	2	3/4 NC x 2 cap screw GR5
10	W302207*	W302207*	W302207*	W302207*	2	3/4 NC flanged lock nut
11	3489*	3489*	3489*	3489*	4	1/2 NC x 3 cap screw GR5
12	854*	854*	854*	854*	2	1/2 flat washer, ZP
13	20A111	20A111	20A111	20A111	2	Stud, spring
14	20A125	20A125	20A125	20A125	2	Spring
15	29485*	29485*	29485*	29485*	4	3/4 NC jam nut ZP
16	10284*	10284*	10284*	10284*	8	1/2 NC x 2 carriage bolt
19	20973*	20973*	20973*	20973*	2	3/8 NC x 1-1/4 carriage bolt GR5 ZP
20	14350*	14350*	14350*	14350*	4	3/8 NC flanged lock nut
21	7747*	7747*	7747*	7747*	2	3/8 NC x 3 cap screw GR5
22	1038693RP	1038693RP	1038693RP	1038693RP	1	Mount, cultipacker stop RH

* Standard hardware, obtain locally

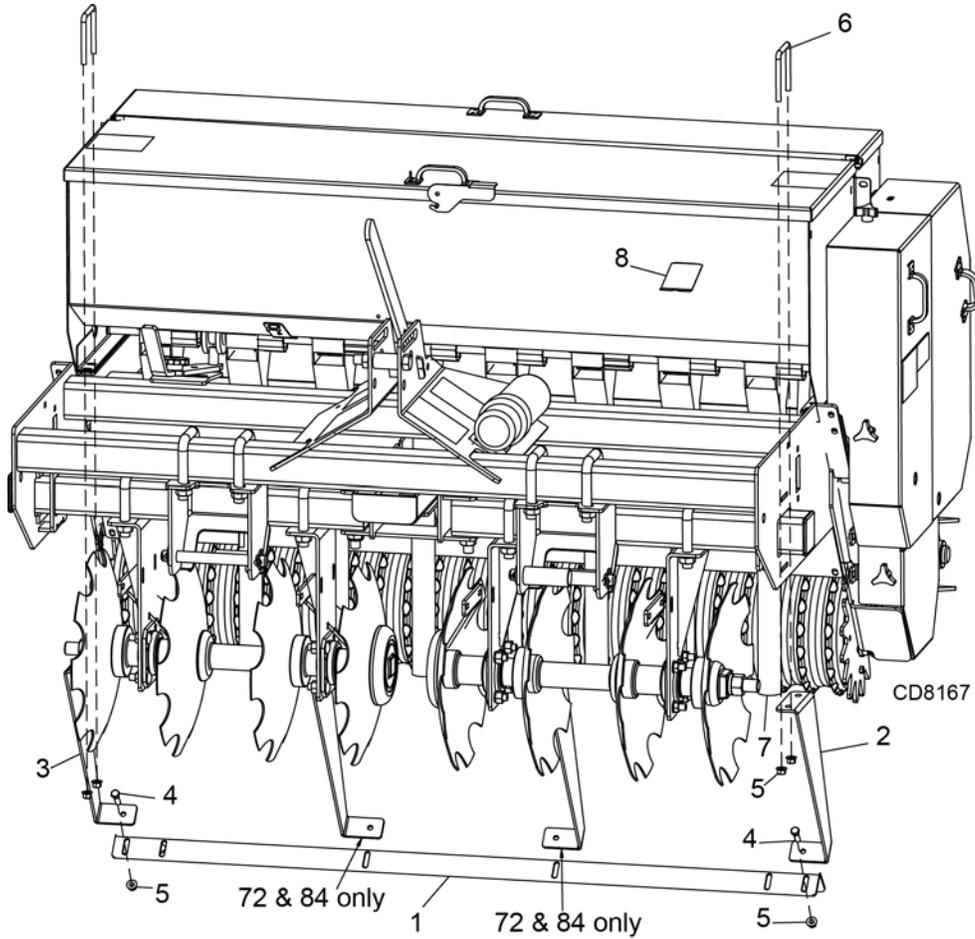
FPS48, FPS60, FPS72, FPS84 CAST IRON CULTIPACKER OPTION (PART NO. 1034655XX)



REF	FPS48	FPS60	FPS72	FPS84	QTY	DESCRIPTION
1	103465048RP	103465060RP	103465072RP	103465084RP	1	Shaft, cultipacker
2	1033740	1033740	1033740	1033740	2	1.38 flanged 4 bolt bearing
3	1035210RP	1035210RP	1035210RP	1035210RP	2	Mount, bearing
4	1034676	1034676	1034676	1034676	4	1-3/4 clamp
5	1034651 (22)	1034651 (26)	1034651 (32)	1034651 (37)		Cultipacker, cast iron
6	12735*	12735*	12735*	12735*	2	1/2 NC x 1-3/4 carriage bolt HT
7	11900*	11900*	11900*	11900*	14	1/2 NC flanged lock nut
8	1257*	1257*	1257*	1257*	2	3/4 flat washer ZP
9	735*	735*	735*	735*	2	3/4 NC x 2 cap screw GR5
10	W302207*	W302207*	W302207*	W302207*	2	3/4 NC flanged lock nut
11	5621*	5621*	5621*	5621*	4	1/2 NC x 2-3/4 cap screw GR5
12	20973*	20973*	20973*	20973*	2	3/8 NC x 1-1/4 carriage bolt GR5
13	14350*	14350*	14350*	14350*	4	3/8 NC flanged lock nut
14	103869225RP	103869225RP	103869225RP	103869225RP	1	Mount, cultipacker stop LH
15	1038693RP	1038693RP	1038693RP	1038693RP	1	Mount, cultipacker stop RH
16	10284	10284	10284	10284	8	1/2 NC x 2 carriage bolt GR5 ZP

* Standard hardware, obtain locally

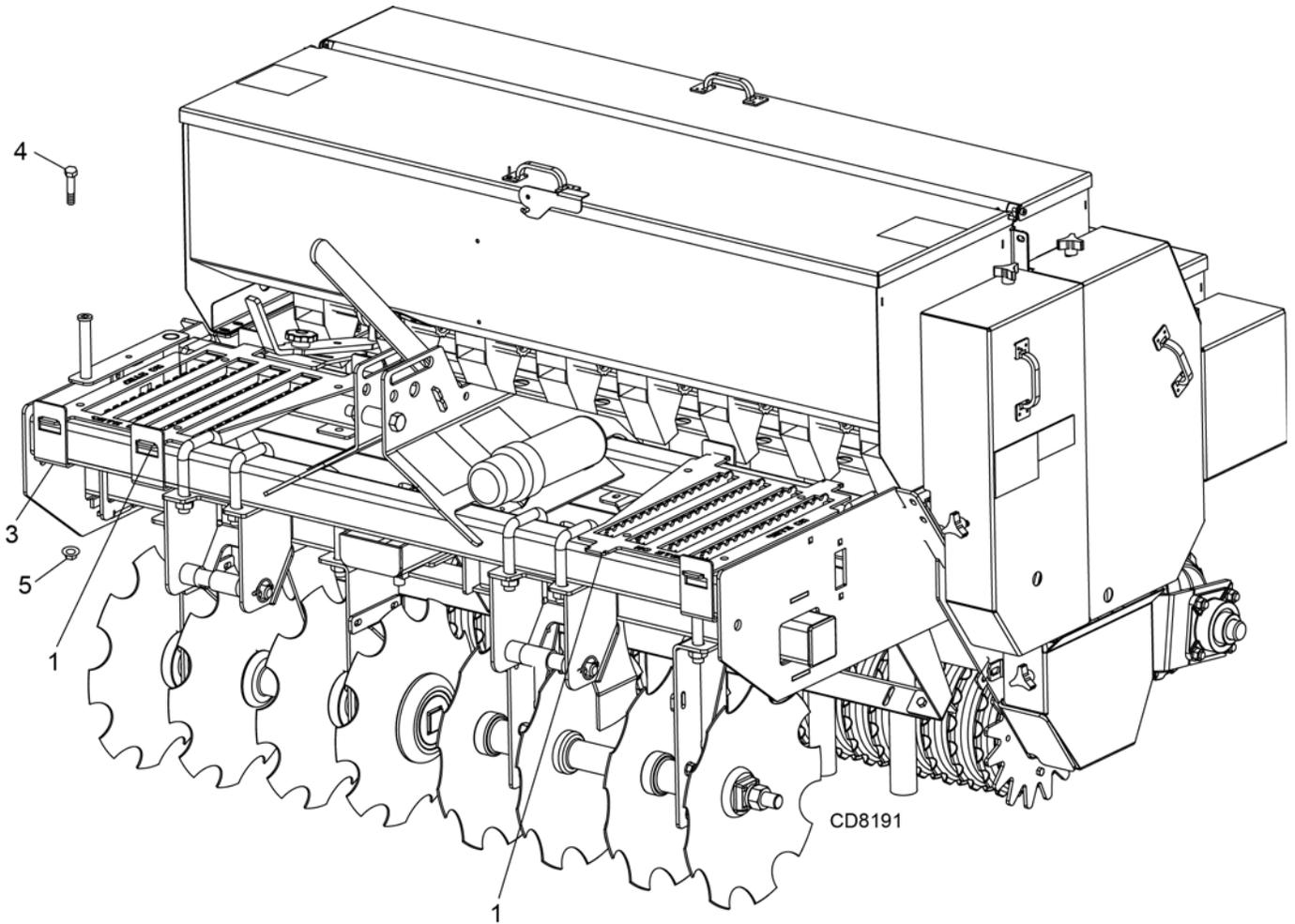
FPS48, FPS60, FPS72, FPS84 ROW UNITS



REF	FPS48	FPS60	FPS72	FPS84	QTY	DESCRIPTION
1	103877148RP	103877160RP	103877172RP	103877184RP	1	Guide, row unit
2	1038769RP (1)	1038769RP (1)	1038769RP (2)	1038769RP (2)		Mount, row guide LH
3	1038768RP (1)	1038768RP (1)	1038768RP (2)	1038768RP (2)		Mount, row guide RH
4	839* (2)	839* (2)	839* (4)	839* (4)		3/8 NC x 1 cap screw GR5 ZP
5	14350* (6)	14350* (6)	14350* (12)	14350* (12)		3/8 NC flanged lock nut
6	1035662 (2)	1035662 (2)	1035662 (4)	1035662 (4)		3/8 x 3-7/16 x 3-5/8 u-bolt
7	1038775RP (7)	1038775RP (8)	1038775RP (10)	1038775RP (12)		1-1/2 x 23 PVC tube
8	1038658	1038658	1038658	1038658		12 pack speed stop

* Standard hardware, obtain locally

PLATFORM ACCESSORY (PART NO. 1038761)



REF	FPS48	FPS60	FPS72	FPS84	QTY	DESCRIPTION
1	-----	1038757RP	1038757RP	1038757RP	2	Platform, seeder
3	-----	1038762RP	1038762RP	1038762RP	8	Clamp, platform
4	-----	10380*	10380*	10380*	8	1/2 NC x 4 HHCS, GR5
5	-----	11900*	11900*	11900*	8	1/2 NC flanged lock nut

HHCS - Hex Head Cap Screw

* Standard Hardware, Obtain Locally

BOLT TORQUE CHART

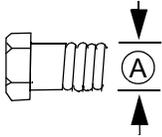
Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

Fasteners must always be replaced with the same grade as specified in the manual parts list.

Always use the proper tool for tightening hardware: SAE for SAE hardware and Metric for metric hardware.

Make sure fastener threads are clean and you start thread engagement properly.

All torque values are given to specifications used on hardware defined by SAE J1701 MAR 99 & J1701M JUL 96.



SAE SERIES TORQUE CHART



SAE Grade 2
(No Dashes)

SAE Bolt Head Identification

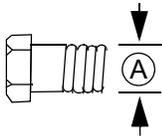


SAE Grade 5
(3 Radial Dashes)



SAE Grade 8
(6 Radial Dashes)

Ⓐ Diameter (Inches)	Wrench Size	MARKING ON HEAD					
		SAE 2		SAE 5		SAE 8	
		lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m
1/4"	7/16"	6	8	10	13	14	18
5/16"	1/2"	12	17	19	26	27	37
3/8"	9/16"	23	31	35	47	49	67
7/16"	5/8"	36	48	55	75	78	106
1/2"	3/4"	55	75	85	115	120	163
9/16"	13/16"	78	106	121	164	171	232
5/8"	15/16"	110	149	170	230	240	325
3/4"	1-1/8"	192	261	297	403	420	569
7/8"	1-5/16"	306	416	474	642	669	907
1"	1-1/2"	467	634	722	979	1020	1383



METRIC SERIES TORQUE CHART



Metric
Grade 8.8

Metric Bolt Head Identification

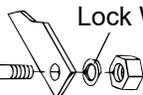


Metric
Grade 10.9

Ⓐ Diameter & Thread Pitch (Millimeters)	Wrench Size	Coarse Thread				Fine Thread				Ⓐ Diameter & Thread Pitch (Millimeters)
		Marking on Head				Marking on Head				
		Metric 8.8		Metric 10.9		Metric 8.8		Metric 10.9		
		N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	
6 x 1.0	10 mm	8	6	11	8	8	6	11	8	6 x 1.0
8 x 1.25	13 mm	20	15	27	20	21	16	29	22	8 x 1.0
10 x 1.5	16 mm	39	29	54	40	41	30	57	42	10 x 1.25
12 x 1.75	18 mm	68	50	94	70	75	55	103	76	12 x 1.25
14 x 2.0	21 mm	109	80	151	111	118	87	163	120	14 x 1.5
16 x 2.0	24 mm	169	125	234	173	181	133	250	184	16 x 1.5
18 x 2.5	27 mm	234	172	323	239	263	194	363	268	18 x 1.5
20 x 2.5	30 mm	330	244	457	337	367	270	507	374	20 x 1.5
22 x 2.5	34 mm	451	332	623	460	495	365	684	505	22 x 1.5
24 x 3.0	36 mm	571	421	790	583	623	459	861	635	24 x 2.0
30 x 3.0	46 mm	1175	867	1626	1199	1258	928	1740	1283	30 x 2.0

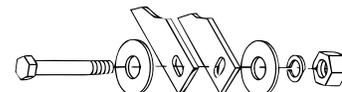
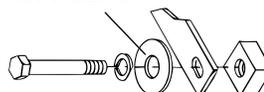
Typical Washer Installations

Bolt



Lock Washer

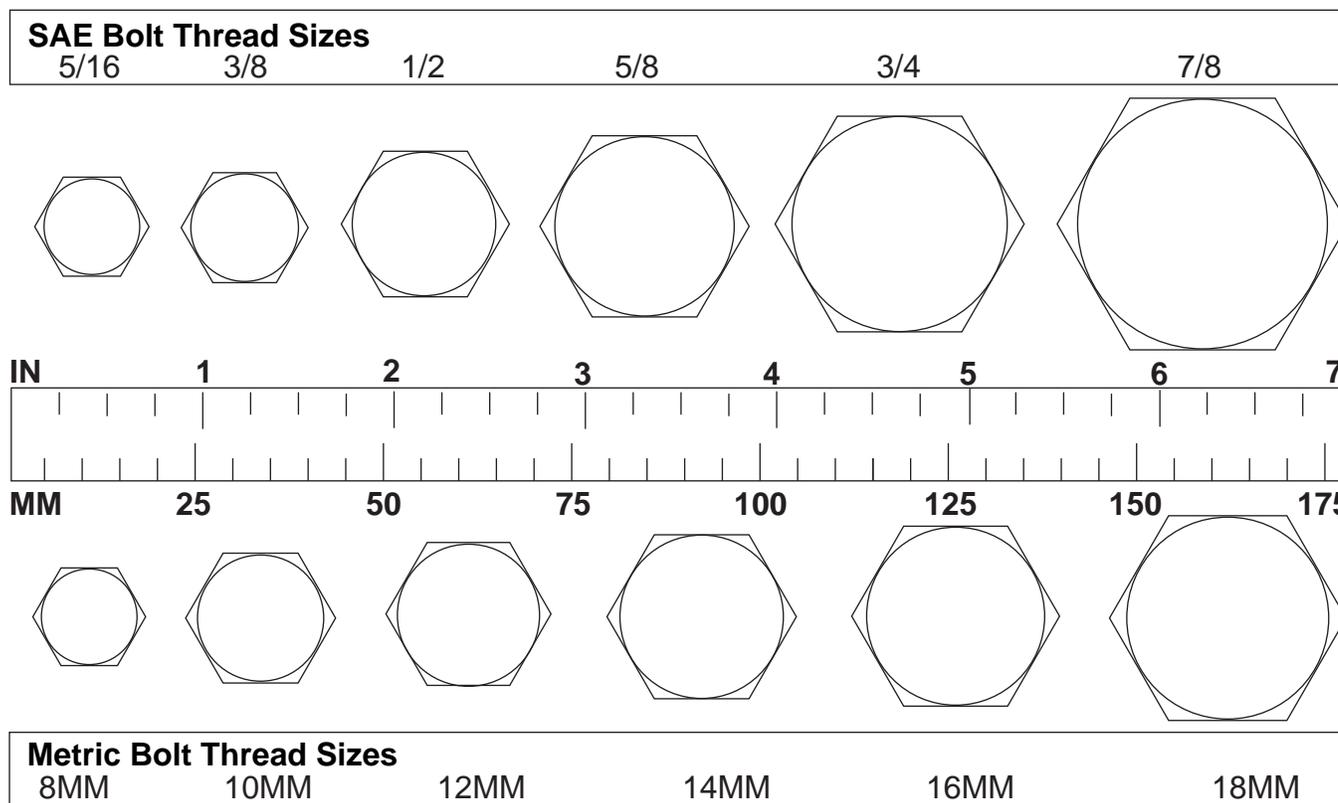
Flat Washer



8/9/00

BOLT SIZE CHART

NOTE: Chart shows bolt thread sizes and corresponding head (wrench) sizes for standard SAE and metric bolts.



ABBREVIATIONS

AG Agriculture
 ASABE American Society of Agricultural & Biological Engineers (formerly ASAE)
 ASAE..... American Society of Agricultural Engineers
 ATF..... Automatic Transmission Fluid
 BSPP..... British Standard Pipe Parallel
 BSPTM..... British Standard Pipe Tapered Male
 CV Constant Velocity
 CCW..... Counter-Clockwise
 CW Clockwise
 F Female
 FT..... Full Thread
 GA Gauge
 GR (5, etc.)..... Grade (5, etc.)
 HHCS Hex Head Cap Screw
 HT..... Heat-Treated
 JIC..... Joint Industry Council 37° Degree Flare
 LH..... Left Hand
 LT Left
 m Meter
 mm Millimeter
 M Male

MPa Mega Pascal
 N Newton
 NC..... National Coarse
 NF National Fine
 NPSM National Pipe Straight Mechanical
 NPT..... National Pipe Tapered
 NPT SWF..... National Pipe Tapered Swivel Female
 ORBM O-Ring Boss - Male
 P Pitch
 PBY..... Power-Beyond
 psi Pounds per Square Inch
 PTO..... Power Take Off
 QD Quick Disconnect
 RH..... Right Hand
 ROPS..... Roll-Over Protective Structure
 RPM..... Revolutions Per Minute
 RT Right
 SAE..... Society of Automotive Engineers
 UNC Unified Coarse
 UNF Unified Fine
 UNS Unified Special

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WARRANTY

(Replacement Parts For All Models Except Zero-Turn Mowers)

Woods Equipment Company (“WOODS”) warrants this product to be free from defect in material and workmanship for a period of ninety (90) days from the date of delivery of the product to the original purchaser with the exception of V-belts, which will be free of defect in material and workmanship for a period of 12 months.

Under no circumstances will this Warranty apply in the event that the product, in the good faith opinion of WOODS, has been subjected to improper operation, improper maintenance, misuse, or an accident. This Warranty does not cover normal wear or tear, or normal maintenance items.

This Warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third party purchaser in any way. There are no third party beneficiaries of this Warranty.

WOODS’ obligation under this Warranty is limited to, at WOODS’ option, the repair or replacement, free of charge, of the product if WOODS, in its sole discretion, deems it to be defective or in noncompliance with this Warranty. **The product must be returned to WOODS with proof of purchase within thirty (30) days after such defect or noncompliance is discovered or should have been discovered, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid.** WOODS shall complete such repair or replacement within a reasonable time after WOODS receives the product. THERE ARE NO OTHER REMEDIES UNDER THIS WARRANTY. THE REMEDY OF REPAIR OR REPLACEMENT IS THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS WARRANTY. WOODS MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND WOODS SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY AND/OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

WOODS shall not be liable for any incidental or consequential losses, damages or expenses, arising directly or indirectly from the product, whether such claim is based upon breach of contract, breach of warranty, negligence, strict liability in tort or any other legal theory. Without limiting the generality of the foregoing, Woods specifically disclaims any damages relating to (i) lost profits, business, revenues or goodwill; (ii) loss of crops; (iii) loss because of delay in harvesting; (iv) any expense or loss incurred for labor, supplies, substitute machinery or rental; or (v) any other type of damage to property or economic loss.

This Warranty is subject to any existing conditions of supply which may directly affect WOODS’ ability to obtain materials or manufacture replacement parts.

No agent, representative, dealer, distributor, service person, salesperson, or employee of any company, including without limitation, WOODS, its authorized dealers, distributors, and service centers, is authorized to alter, modify, or enlarge this Warranty.

Answers to any questions regarding warranty service and locations may be obtained by contacting:

WOODS® | A Blount International Brand

2606 South Illinois Route 2
Post Office Box 1000
Oregon, Illinois 61061 USA
800-319-6637 tel
800-399-6637 fax
woodsequipment.com



ALITEC™
CENTRAL FABRICATORS®
GANNON®
WAIN-ROY®
WOODS®

WARRANTY

All Models Except Zero-Turn Mowers

Please Enter Information Below and Save for Future Reference.

Date Purchased: _____ From (Dealer): _____

Model Number: _____ Serial Number: _____

Woods Equipment Company ("WOODS") warrants this product to be free from defect in material and workmanship. Except as otherwise set forth below, the duration of this Warranty shall be for TWELVE (12) MONTHS COMMENCING ON THE DATE OF DELIVERY OF THE PRODUCT TO THE ORIGINAL PURCHASER.

All current model backhoes, loaders and mounts (except 3-pt. SAF-T-LOK® mounts) are warranted for two (2) years from the date of delivery to the original purchaser. The limited warranty covers any defects in the material and/or workmanship. Following the proper, recommended installation by an authorized Woods Dealer and normal use of a Woods mounting and backhoe or loader, if a tractor incurs damage resulting from the attachment, Woods will cover the existing tractor warranty in the event the manufacturer voids its tractor warranty because of the attachment. Warranty does not cover any misuse or abusive conditions that could cause premature wear or damage to attachment or tractor.

The warranty periods for specific parts or conditions are listed below:

Part or Condition Warranted	Model Number	Duration (from date of delivery to the original purchaser)
	All units invoiced after 4/30/2012	
Gearbox components	BB48X, BB60X, BB72X, BB84X, BB600X, BB720X, BB840X, BB6000X, BB7200X, BB8400X, DS12.50, TS14.60, DS1440, TS1680, DS8.30, DS10.40, DS8.50, DSO8.50, DS10.50, DSO10.50, DBH5.30, DBH6.30	6 years
	BW12, BW15, BW126X, BW180X, BW126XHD, BW180XHD, BW1260X, BW1800X, BW10.50, BW10.50Q, BW15.50, BW15.50Q, BW10.60, BW10.60Q, BW15.60, BW15.60Q, BW10.70, BW10.70Q, BW15.70, BW15.70Q	
	BW240X, BW240XHD, BW1620X, BW2400X	
	RD990X, PRD6000, PRD7200, PRD8400, S15CD, S20CD, S22CD, S25CD, S27CD, S30CD, TC/R74, TC/R68, TC/R60, TBW144, TBW180, TBW204, TSG50, S12ED, S15ED, S18ED, S20ED, TPD25, TPD35, TPD65, TPD95	
	RDC54, RD60, RD72, TBW150C, TS/R60, TS/R52, TS/R44, RC3.5, RC4, RC5, RC6	3 years (1 year if used in rental or commercial applications)
Blade spindles	RD990X, PRD6000, PRD7200, PRD8400, TBW144, TBW180, TBW204	3 years

Under no circumstances will this Warranty apply in the event that the product, in the good faith opinion of WOODS, has been subjected to improper operation, improper maintenance, misuse, or an accident. This Warranty does not apply in the event that the product has been materially modified or repaired by someone other than WOODS, a WOODS authorized dealer or distributor, and/or a WOODS authorized service center. This Warranty does not cover normal wear or tear, or normal maintenance items. This Warranty also does not cover repairs made with parts other than those obtainable through WOODS.

This Warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third party purchaser in any way. There are no third party beneficiaries of this Warranty.

WOODS makes no warranty, express or implied, with respect to engines, batteries, tires or other parts or accessories not manufactured by WOODS. Warranties for these items, if any, are provided separately by their respective manufacturers.

WOODS' obligation under this Warranty is limited to, at WOODS' option, the repair or replacement, free of charge, of the product if WOODS, in its sole discretion, deems it to be defective or in noncompliance with this Warranty. **The product must be returned to WOODS with proof of purchase within thirty (30) days after such defect or noncompliance is discovered or should have been discovered, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid.** WOODS shall complete such repair or replacement within a reasonable time after WOODS receives the product. THERE ARE NO OTHER REMEDIES UNDER THIS WARRANTY. THE REMEDY OF REPAIR OR REPLACEMENT IS THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS WARRANTY. WOODS MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND WOODS SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY AND/OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

WOODS shall not be liable for any incidental or consequential losses, damages or expenses, arising directly or indirectly from the product, whether such claim is based upon breach of contract, breach of warranty, negligence, strict liability in tort or any other legal theory. Without limiting the generality of the foregoing, Woods specifically disclaims any damages relating to (i) lost profits, business, revenues or goodwill; (ii) loss of crops; (iii) loss because of delay in harvesting; (iv) any expense or loss incurred for labor, supplies, substitute machinery or rental; or (v) any other type of damage to property or economic loss.

This Warranty is subject to any existing conditions of supply which may directly affect WOODS' ability to obtain materials or manufacture replacement parts.

No agent, representative, dealer, distributor, serviceperson, salesperson, or employee of any company, including without limitation, WOODS, its authorized dealers, distributors, and service centers, is authorized to alter, modify, or enlarge this Warranty. Answers to any questions regarding warranty service and locations may be obtained by contacting:

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