

Farm King

OPERATOR AND PARTS MANUAL

Rotary Cutter

Series II - 5' & 6'

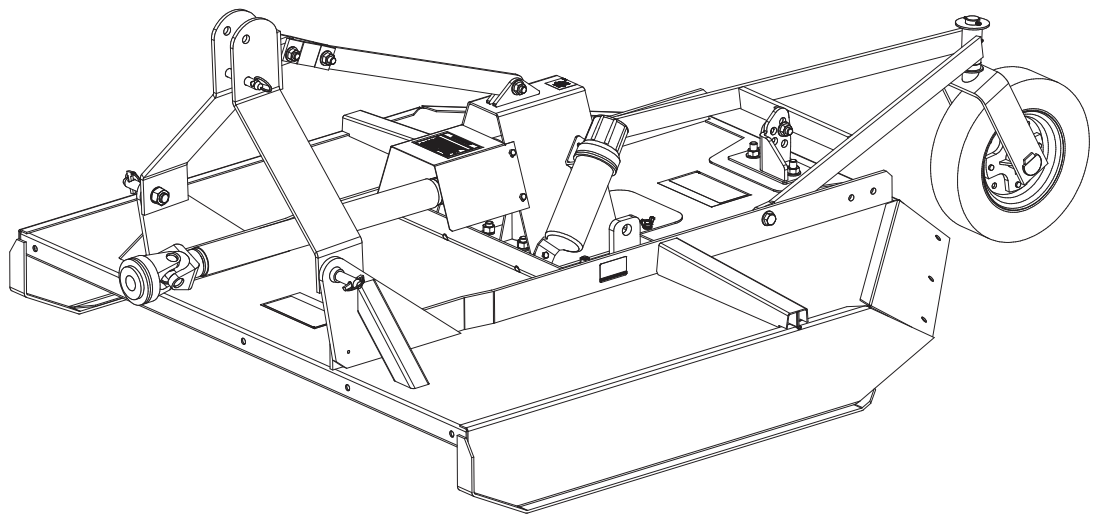


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Manufacturer’s statement: for technical reasons Buhler Industries Inc. reserves the right to modify machinery design and specifications provided herein without any preliminary notice. Information provided herein is of descriptive nature. Performance quality may depend on soil fertility, applied agricultural techniques, weather conditions and other factors.

Introduction

The Farm King Series II Rotary Cutter is available in widths of 60", 72" and 84" and can be equipped with either trailing style or 3-point hitch. The 3-point hitch is Quick Hitch compatible so it is easy to attach and unhook. 3-point hitch models include a single solid rubber trailing wheel, while rotary cutters with a trailing hitch have two wheels, either air-filled or made of solid rubber.

Farm King Rotary Cutters are built tough and made to last. The blades are heat-treated to enhance rigidity and the heavy-duty gearbox is designed to be rugged and durable. The access panel on the deck makes it easy to inspect or replace the blades. An optional chain kit minimizes the possibility of flying debris. The stump-jumper is a 24" plate mounted to the blades below the gearbox and minimizes stress on the deck and gearbox. The power take-off (PTO) shaft on the series II 60" rotary cutter includes a shear pin to protect the gearbox in the event of an unforeseen obstacle, while the 72" and 84" rotary cutters are equipped with a slip clutch to prevent gearbox damage. The 72" with the trailing style hitch (Y720T) includes a two-piece PTO shaft for tighter turning radius. An 8" cylinder and hoses are optional for all trailing models.

Keep this manual handy for frequent reference. All new operators or owners must review the manual before using the equipment and at least annually thereafter. Contact your Farm King Dealer if you need assistance, information, or additional copies of the manual. Visit our website at www.buhlerindustries.com for a complete list of dealers in your area.

The directions left, right, front and rear, as mentioned throughout this manual, are as seen facing in the direction of travel of the implement.

Safety

Safety Instructions

Remember, YOU are the key to safety. Good safety practices not only protect you, but also the people around you. Make these practices a working part of your safety program. Be certain that everyone operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

The alert symbol is used throughout this manual. It indicates attention is required and identifies hazards. Follow the recommended precautions.



The safety alert symbol means...

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



CAUTION

The caution symbol indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



WARNING

The Warning Symbol indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



DANGER

The Danger Symbol indicates an imminently hazardous situation that, if not avoided will result in death or serious injury. This signal word is to be limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

General Safety Instructions

- Have a first-aid kit available for use and know how to use it.
- Have a fire extinguisher available, stored in a highly visible location, and know how to use it.
- Wear appropriate protective gear. This list may include but is not limited to:
 - hard hat
 - protective shoes with slip resistant soles
 - protective glasses or goggles
 - heavy gloves
 - wet weather gear
 - hearing protection
 - respirator or filter mask
- Read and understand the Operator's Manual and all safety signs before operating, servicing, adjusting, repairing, or unplugging the equipment.
- Do not attempt any unauthorized modifications to your Farm King product as this could affect function or safety, and could affect the life of the equipment.
- Never start or operate the mower except from the operator's station on the power unit.
- Inspect and clean the working area before operating.
- Keep hands, feet, clothing, and hair away from moving parts.
- Ensure bystanders are clear of the area before operating.

Start-up Safety

- Do not let inexperienced operators or children run this equipment.
- Place all tractor and machine controls in neutral before starting.
- Operate only with ROPS and seatbelt equipped tractors.
- Do not operate inside a building unless there is adequate ventilation.
- Ensure all shields are in place and in good condition before operating.
- Stay clear of PTO shaft and machine when engaging PTO.

Operation Safety

- Do not permit riders.
- Do not wear loose fitting clothing during operation.
- Never operate over 540 PTO rpm speed.
- Never operate the equipment in the raised position.

Transport Safety

- Review Transport Safety instructions in tractor manual before moving.
- Check with local authorities regarding transport on public roads. Obey all applicable laws and regulations.
- Do not tow equipment that does not have brakes at speeds over 20 mph (32 km/h).
- Do not tow equipment that does not have brakes that, when fully loaded, has a mass (weight) over 3,300 lb (1,497 kg) and more than 1.5 times the mass (weight) of the towing unit.
- Make sure the SMV (Slow Moving Vehicle) emblem and all the lights and reflectors that are required by the local highway and transport authorities are in place, are clean, and can be seen clearly by all overtaking and oncoming traffic.

- Never have the equipment in operation during transport.
- Always travel at a safe speed.

Service and Maintenance Safety

- Stop engine, set brake, remove ignition key, and wait for all moving parts to stop before servicing, adjusting, repairing, or unplugging.
- Support the equipment with blocks or safety stands before working beneath it.
- Follow good shop practices including:
 - keep service area clean and dry
 - be sure electrical outlets and tools are properly grounded
 - use adequate light for the job.
- Replace and secure all shields removed during servicing before operating.
- Use heavy leather gloves to handle sharp objects.
- Check hydraulics regularly for leaks. Use cardboard to look for leaks, and use hand and eye protection.
- Relieve pressure on hydraulic system before repairing or adjusting.

Storage Safety

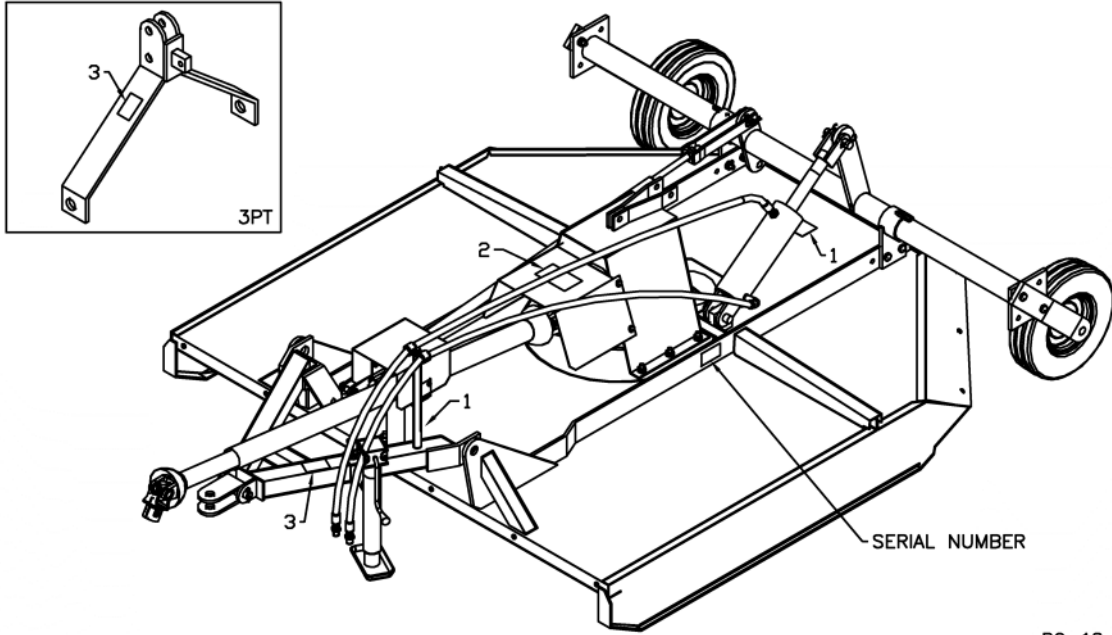
- Store the unit in an area away from human activity.
- Do not permit children to play on or around the stored machine.
- Support the frame on stands and blocks to provide a secure base.

Safety Signs

- The following illustration shows the approximate location and detail of safety signs.
- Keep all safety signs clean and legible and replace any that are damaged or missing.
- When original parts are replaced, any safety signs affixed to those parts should be replaced as well. Replacement safety signs are available from your local dealer.

Installation

- To install safety signs, ensure the installation area is clean and dry. Decide on the exact position before you remove the backing paper. Remove the smallest portion of the split backing paper and align over the specified area. Carefully press in place.
- Slowly peel back the remaining paper and smooth the remaining portion in place. Small air pockets can be pierced with a pin and smoothed out.
- Replace safety sign immediately should it become damaged, torn or illegible. Obtain replacements from your authorized dealer using the part numbers shown.



! DANGER

1. Avoid bodily injury:
Object may be thrown great distances by cutting blade rotating under deck.
2. Stay clear and watch out for bystanders.
Keep all shields in place.
Use extra protective shields (optional) on all discharge openings at front and rear of deck whenever possible.
3. Before working on mower:
Disengage power, shut off engine, and make sure blade has stopped turning.

966001

! WARNING



- ENSURE DRIVELINE SHIELDS ARE IN PLACE AND IN GOOD CONDITION BEFORE OPERATING.
- PTO OPERATING SPEED IS 540 RPM.
- ALWAYS REMOVE TRACTOR KEY, SET PARK BRAKE AND PLACE MOWER IN LOWEST POSITION WHEN UNATTENDED.
- ENSURE ROTATION OF ALL COMPONENTS HAS STOPPED BEFORE SERVICING.

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! WARNING

CHECK PTO SHAFT LENGTH BEFORE RAISING OR LOWERING IMPLEMENT. SHAFT MUST NOT BOTTOM OR SEPERATE (SEE MANUAL)

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Assembly Instructions

3-Point Hitch Mounted Assembly Instructions

1. Mount the hitch assembly (906389/906390) to the deck using the category 1 lift arm pins (965809/965926) supplied. The bushings (906416/906418) and the 1" I.D. washer (967140 & 907309) should allow the hitch to swivel freely.
2. The ends of the two pivot arms (906380 & 906381) with the offset holes bolt to the hitch using a 5/8" x 4" bolt and lock nut. The offset should be turned down. The lift arm (906424/906425) bolts between the ends of the pivot arms and the brackets at the top of the center mount (816335/816332) using 5/8" x 2" hex bolts and lock nuts. Do not over tighten the lock nuts. The entire hitch assembly should swivel freely if properly assembled. Assemble chain PTO holder (909703) to 3-point hitch (906389/906390) using one 3/8" x 1-1/2" hex bolt (86171), lock washer and hex nut.
3. Bolt the tailwheel arms (816505/815971) to the main body using 5/8" hardware. Assemble the tailwheel adjustment weldment (816510/815977) to both the body and tailwheel arms using 5/8" x 1-3/4" bolt and hardware. This holds the tailwheel in place and sets the cutting height of the cutter. Mount 15" wheel (814432) to tailwheel arms using washer and cotter pin (81210 & 967110).
4. Connect the PTO shaft to the gearbox. A snap ring holds on the PTO shafts with a shear pin. The clutch must be engaged on PTO shafts with a slip clutch as per operating instructions so the clutch will slip if you hit a hard object. After engaging clutch, bolt the PTO guard (966502/966102) to the center mount using 5/16" x 3/4" hex bolts, lock washers and hex nuts.
5. Re-check all the fasteners. There should be free movement of all pieces held together by a bolt and lock nut.

Trailing Model Assembly Instructions

1. Mount the swivel tube assembly (966584/966146) to the cutter deck by bolting to the outside edge of the deck reinforcement using 1/2" x 1-3/4" hex bolts, lock washers and hex nuts.
2. The wheel yoke (F9434) may be assembled to cutter in two ways:
 - Wheels trailing behind mower. Assemble as shown in drawing. Bolt the yoke arms (901051) to the tube assembly using 1/2" x 2" hex bolts, lock washers and hex nuts with the wheels turned to the inside of the mower. With the wheels in this position, the control rod clevis (966525/902341) attaches to the top bracket on the tube assembly as shown in drawing. Use a 1" I.D. flat washer and a 1/4" x 1-1/2" cotter pin to mount the wheels.
 - Wheels forward at side of cutter. Bolt the yoke arms to the tube assembly so the wheels are on the outside of the cutter. With the wheels in this position, the control rod clevis (966525/902341) attaches to the bottom bracket on the tube assembly.
3. Bolt the tongue assembly (906414/906415) to the cutter deck using 7/8" x 2-1/2" bolts, lock washers and hex nuts. The 1-1/4" diameter x 5/8" long bushings (966528/906418) held in place by a 1" I.D. flat washer (967140/907309) should allow the tongue to swivel.

4. Bolt the welded end of the level control rod (966526/906122) to the front tongue as shown on drawing using a 5/8" x 2-1/2" hex bolt and lock nut. The control rod clevis (966525/902341) must be adjusted so the cutter will sit level with the ground when it is pinned to the swivel assembly. **NOTE:** Be sure to use the top bracket on the swivel assembly (966584/966146) when the wheels are trailing behind the cutter as shown in drawing.
5. Mount the slip clutch PTO shaft on the cutter. The clutch must be engaged so it will slip when you hit a hard object as per operating instructions. After engaging the clutch, bolt on the PTO guard (966502/966102) using 5/16" x 3/4" hex bolts, lock washers and hex nuts.
6. An optional jack (960327) is available to lift the tongue when mounting the cutter a tractor.
7. Recheck and tighten all bolts. Only pieces held by a bolt and lock nut should have free movement.

Chain Kit Assembly Instructions

All cutters have the required holes for mounting the chain kit. The use of this chain kit will help reduce the possibility of injury to persons or property by stopping many thrown objects.

1. Bolt the front chain holder (966586/966147) to the front of the cutter using 1/2" x 1" hex bolts, lock washers and hex nuts.
2. Use 1/4" x 6 link chains (966591) at the front. A chain is pushed through each slot from underneath and a 3/8" rod is threaded through the top link of each chain. Hold rods in place using the cotter pins supplied. See parts list for correct length of rods.
3. Bolt the rear center (966588/966149) and rear side (966593/966594) chain holder to the rear of the cutter. Use 1/4" x 5 link chains (966596) along all rear edges. Thread rods as in front using lengths as shown in parts list. **NOTE:** Washers are used to hold an extra chain at both ends of the rear center rod and at the inside end only of the rear side rods. These extra chains close the gap left at the corners where the chain holders meet.

Operation Instructions

1. Connecting to Tractor: All cutters are supplied with a standard 1-3/8" 6-spline yoke on the PTO shaft.



WARNING

This cutter is designed to operate only with a 540 rpm PTO. After connecting cutter to tractor and before doing any cutting, check to see that the PTO shaft is not touching anywhere on the cutter when raising and lowering or when cornering.

2. PTO Shafts: Make sure the length of the PTO shaft is compatible with different working positions of the cutter. Carefully follow the lubrication chart supplied with the PTO shaft. When cutting, avoid joint angles over 35°. PTO shafts should be disengaged when turning sharp corners. Using tape or a bright colored marking pen, mark on the outer shields the position where the shaft is completely pushed together and the position where you have a 4" overlap. Watch these marks when moving the cutter through all possible operating angles to see that the PTO shaft stays within this range.

PTO Shafts with Shear Pin: Loosen the outer shield on the implement end of the PTO and push the gearbox shaft through the end yoke. Using snap ring pliers, put the snap ring on the end of the gearbox shaft. This is what keeps the PTO shaft on if the shear pin breaks and the cutter should not be used without it. Insert a 1/2" x 3-1/2" Grade 2 bolt with a lock nut to act as shear pin and replace all shields.

PTO Shafts with Slip Clutch: **NOTE:** All PTO shafts with a slip clutch are shipped with the slip clutch disengaged. There are four socket set screws on the inside of the clutch assembly which are all turned out as far as they go to engage the clutch. Disengage by turning set screws in fully. The clutch should slip if a hard object such as a stump or rock is hit by the blades.



WARNING

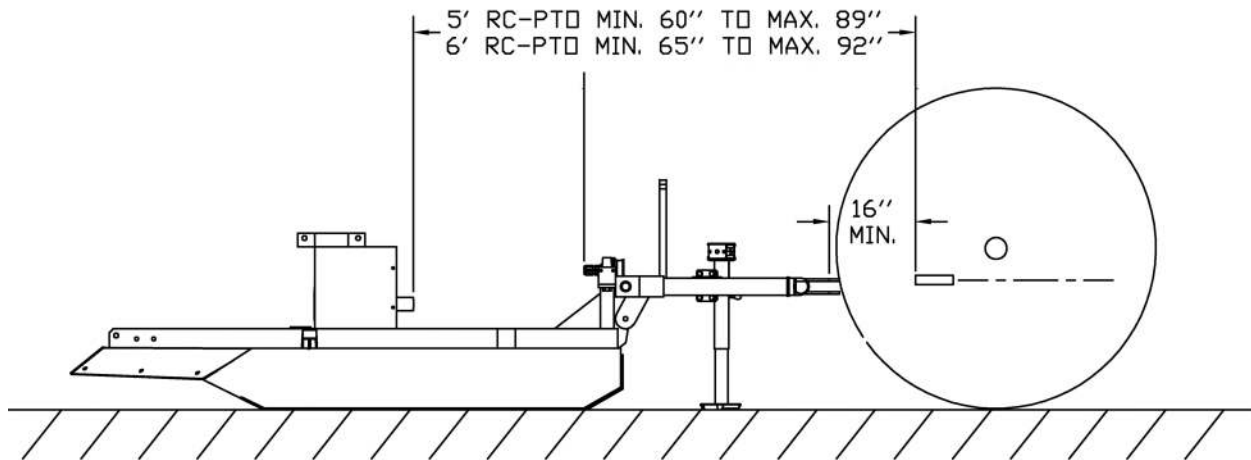
Always be certain that the PTO shaft is disengaged and the tractor brakes are locked before making this or any other adjustment.

The clutch plates should be "burned" just before using the cutter in spring for the first time. This is done by disengaging the clutch and then engaging the PTO shaft for a few seconds till the clutch plates smoke. After this you engage the clutch again as described above. This is done because the plates may lock up during prolonged storage.

3. Operating Tractor Engine: Operate the tractor PTO at 540 rpm when doing normal cutting. If the forward speed is too high, a lower gear can be used.

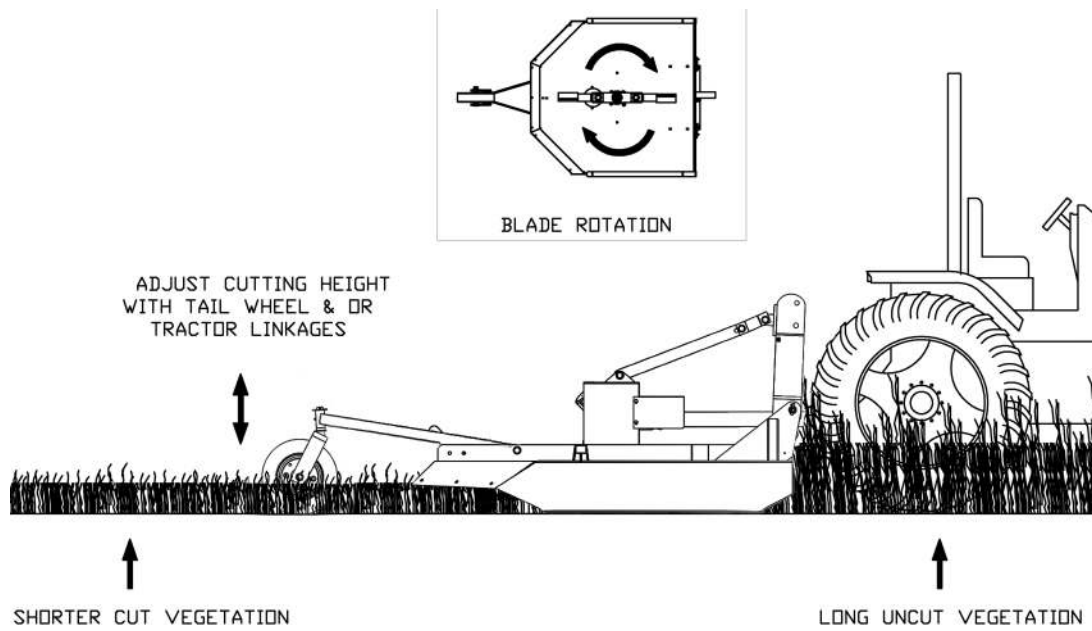
4. Cutting: The cutter should be run with the front end a little low or just level for normal light cutting. For brush or dense tall weeds, running front end high may give a better shredding job. On rough ground, the front end will also tend to dig in less. The cutter can also be used to shred stubble or top vegetables prior to harvest.
5. 5' & 6' Trailing Models: The wheels supplied with the cutter are for towing at speeds of no more than 32 km/h (20 mph). These wheels should be greased every time you use the cutter.

NOTE: TRACTOR HITCH OF LESS THAN 16" MIN CAN RESULT IN PTO BOTTOMING OUT.
 (ASAE STD: TYPE 2 PTO (1 3/8"/1000 RPM) = TRACTOR HITCH DIM OF 16")



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Theory of Operations

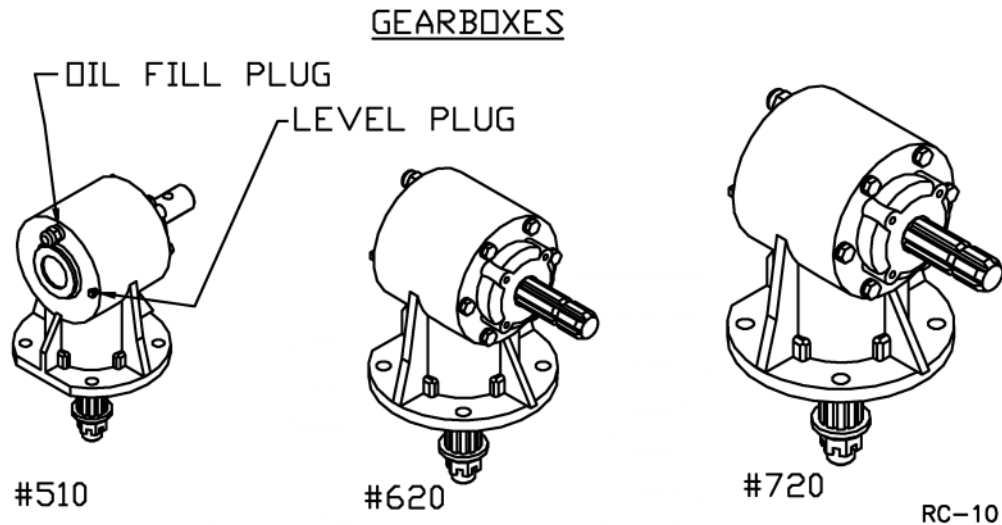


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Maintenance

Service

1. Gearbox: The gearbox should be filled with SAE90 oil to the bottom edge of the lower oil plug when shipped. Check this before using the cutter and at regular intervals to see that this oil level is maintained.

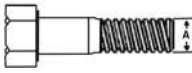





2. Grease wheels, tail wheel spindle sleeve, universal joints and shield bushings on the PTO shaft after every eight hours of use. Lubricate the telescoping PTO tube and the PTO quick release about every twenty hours of use.
3. Shielding: Always keep all shielding in place and repair or replace if damaged.
4. Blades: When replacing or grinding the cutting blades, both blades must be replaced or reground at the same time to maintain the proper balance in the cutting unit. **NOTE:** Use Farm King replacement blades only. Using substitute blades may be dangerous. When changing blades, open the access door on the deck and take the screws out of the blade pin clips. The clips are then pulled out and the blade should fall down. Replacing the new or sharpened blades is done with the back of the mower raised and securely blocked so it will not fall. Bolt on the blade pin clips and close the access door.
5. PTO Shaft: To replace clutch lining on slip clutch PTO shafts, first disengage the clutch by turning the four set screws all the way in. Remove outside bolts from clutch assembly and replace clutch linings. When re-tightening bolts, stop when the clutch spacer starts to touch the clutch plates. You should be able to just move the spacer by hand when you have the correct bolt torque. Re-engage clutch after assembly is complete.

Bolt Torque

Checking Bolt Torque

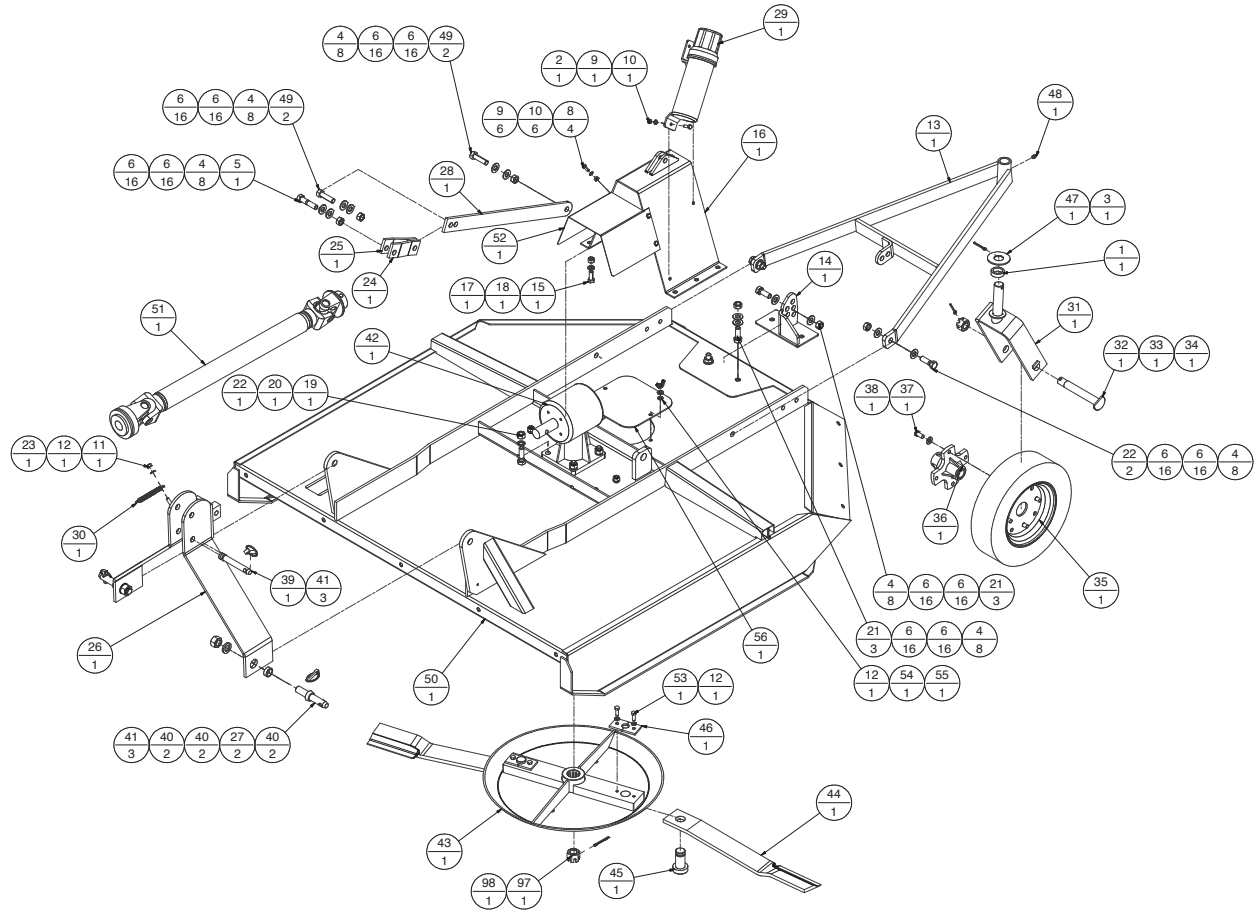
The tables shown below give correct torque values for various bolts and hex bolts. Tighten all bolts to the torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

Bolt Torque*						
						
Bolt Diameter	Grade 2 Bolts		Grade 5 Bolts		Grade 8 Bolts	
(inches)	SAE 2		SAE 5		SAE 8	
"A"	(lb-ft)	(N.m)	(lb-ft)	(N.m)	(lb-ft)	(N.m)
0.25 (1/4)	6	8	9	12	12	17
0.313 (5/16)	10	13	19	25	27	36
0.375 (3/8)	20	27	33	45	45	63
0.438 (7/16)	30	42	53	72	75	100
0.5 (1/2)	45	61	80	110	115	155
0.563 (9/16)	70	95	115	155	165	220
0.625 (5/8)	95	128	160	215	220	305
.75 (3/4)	165	225	290	390	400	540
0.875 (7/8)	170	230	420	570	650	880
1	225	345	630	850	970	1320

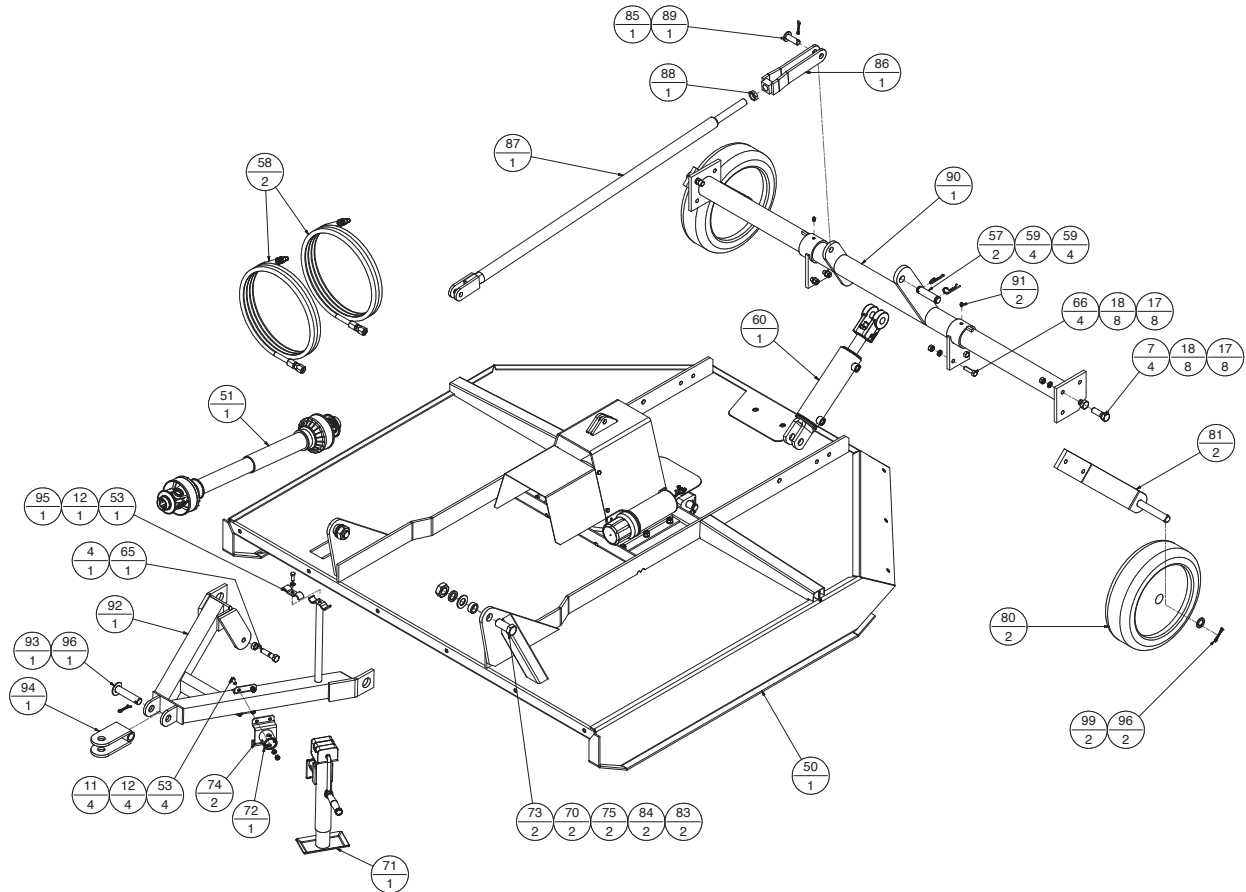
Torque figures indicated above are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or hex bolts unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

* Torque value for bolts and hex bolts are identified by their head markings.

3-Point Hitch Mounted Drawing



Trailing Drawing



When Ordering Parts

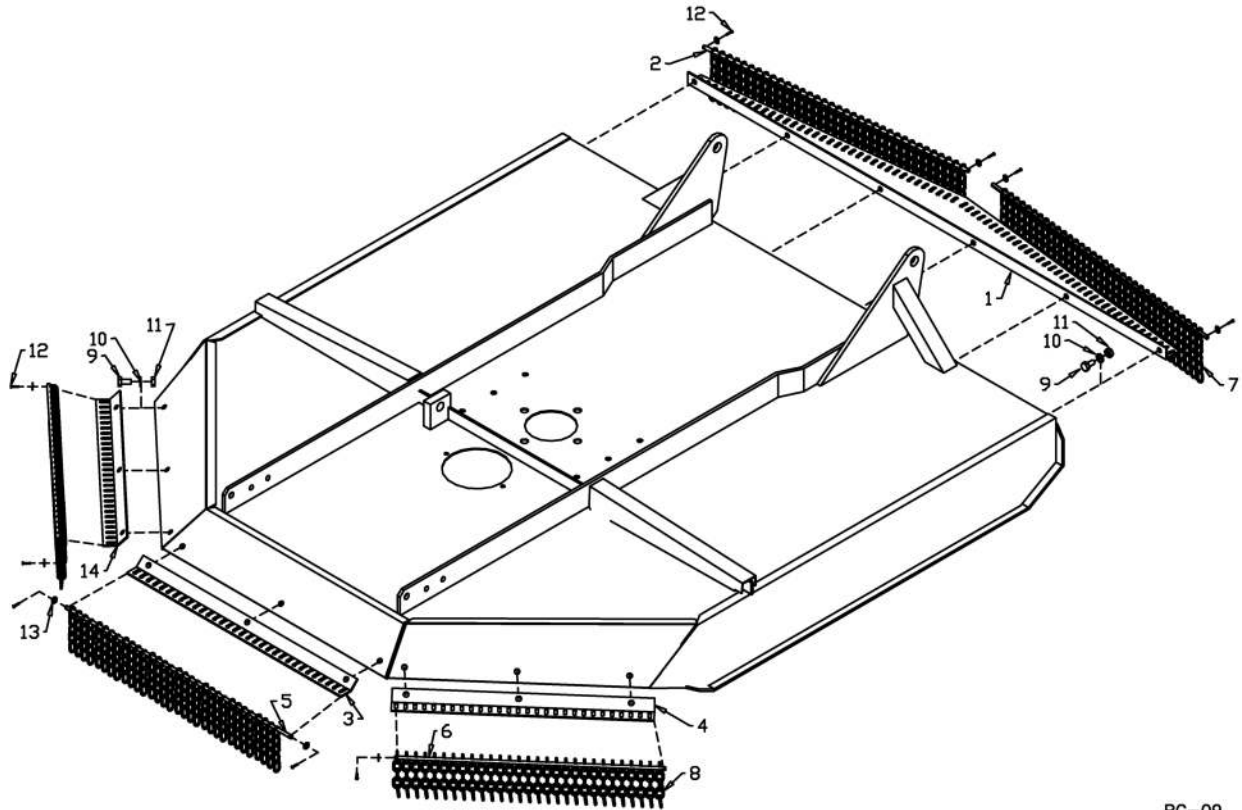
Always give your dealer the Model, Color and Serial Number of your machine to assist him in ordering and obtaining the correct parts. Use the exploded view and tabular listing of the area of interest to exactly identify the required part.

Item	Part Number	Description	Qty
1	116786	Spacer 1.26ld, Tailwheel Rc	1
2	812026	5/16" x 1" Hex Bolt (PI)	2
3	81210	Cotter Pin	1
4	812482	Nut Lock (Steel) 0.625Nc Grb PI	8
5	812493	Bolt Hex 5/8" x 2-1/2" Unc	1
6	812639	Washer 0.625 Sae Flat Bs PI	16
7	81624	1/2" x 2-1/4" Hex Bolt (PI)	4
8	81549	Bolt Hex 0.313Nc x 0.75 Gr5pl	4
9	81568	5/16" Hex Nut PI	6
10	81569	5/16" Lock Washer PI	6
11	81592	3/8" Hex Nut PI	1
12	81593	Lock Washer 0.375	1
13	816505	5' Rc Tailwheel Weldt	1
	815971	6' Rc Tailwheel Weldt	1
14	816510	Tailwheel Adj Weldt - 5'	1
	815977	Tailwheel Adj Weldt - 6'	1
15	81620	Bolt Hex 0.500Nc x 1.25 Gr5 PI	6
16	816335	Center Mount - 5'	1
	816332	Center Mount - 6'	1
17	81636	1/2" Hex Nut PI	6
18	81637	0.50 Lock Washer	6
19	81676	5/8" Hex Nut - 5'	4
	81700	3/4" Hex Nut - 6'	4
20	81677	Washer Lock 0.625 PI - 5'	4
	81701	3/4" Lock Washer - 6'	4
21	84270	Bolt Hex 0.625 x 1.75 Gr5 PI	3
22	981664	Hex Bolt 5/8 x 2.25	2
23	86171	Bolt Hex 0.375 Nc x 1.25	1
24	906380	Pivot Arm - R	1
25	906381	Pivot Arm - L	1
26	906389	Hitch Weldt - 5'	1
	906390	Hitch Weldt - 6'	1
27	906416	Hitch Bushing 1.25Od x 0.44Lg - 5'	2
	906418	Hitch Bushing 1.50Od x 0.56Lg - 6'	2
28	906424	Lift Arm - 5'	1
	906425	Lift Arm - 6'	1
29	907475	Manual Holder Assy	1

Item	Part Number	Description	Qty
30	909703	Safety Chain - All	1
31	909767	Wheel Yoke Rc	1
32	909768	Spindle Bolt Seri Rc	1
33	909769	Slotted Hex Nut	1
34	909770	Cotter Pin 0.250 x 2.00 Znpl	1
35	909771	15" Solid Wheel & Rim	1
36	909772	Hub w/ Bush Rc	1
37	909773	Hub Hex Bolt M12	4
38	909774	Hub Flat Washer	4
39	965807	Top Link Pin (Cat.1), 5' Rc	1
	965910	Top Link Pin 1" x 5-1/4" (Cat. 2) - 6'	1
40	965809	Lift Arm Pin Cat. 1 w/ Nut & Washer - 5'	2
	965926	Lift Arm Pin Cat. 2 w/ Nut & Washer - 6'	2
41	965911	7/16" Linch Pin	3
42	966108	Gearbox (Shear Pin) - 5'	1
	966109	Gearbox (Slip Clutch) - 6'	1
43	966518	Stump Jumper - 5'	1
	966110	Stump Jumper - 6'	1
44	966519	Blade 24" - 5'	2
	966111	Blade 30" - 6'	2
	F9439	Blade 24.25" - 5' (Optional Low Cut Set)	1
	F9440	Blade 30.25" - 6' (Optional Low Cut Set)	1
45	966520	Blade Pin	2
46	816476	Blade Pin Clip	4
47	816681	1.25ld x 4 mm Tail Wheel Washer	1
48	967164	Drive-In Grease Zerk	1
49	981664	Bolt Hex 0.625Nc x 2.25 Gr5 Pl	2
50	906417	Deck Weldt - 5'	1
	906419	Deck Weldt - 6'	1
51	F0438	PTO Shaft (Shear Pin) - 5' w/ 3-Pt Hitch	1
	F0439	PTO Shaft (Shear Pin) - 5' Trailing	1
	F0440	PTO Shaft (Slip Clutch) - 6' w/ 3-Pt Hitch	1
	F0441	PTO Shaft (Slip Clutch) - 6' Trailing	1
52	966502	PTO Guard - 5'	1
	966102	PTO Guard - 6'	1
53	86170	Hex Bolt 0.375 Unc x 1.0	4
54	81570	Washer 0.375 Flat St Hs Pl	2
55	84217	Wing Nut 0.375	2
56	966534	Access Door	1
57	103753	Clevis Pin 1"Ø x 4"	2
58	114905	1/2" x 144" Hose 1/2" Mnpt x 3/4" Morb	2

Item	Part Number	Description	Qty
59	12779	Hairpin Clip #9	4
60	24791M	Cyl 3.0 Diam x 8.00	1
65	84335	Bolt Hex 5/8" x 2-1/2" Unc	1
66	87553	Bolt Hex 0.500Nc x 1.75 Gr5 PI	4
70	966528	Bushing Hitch 5' Rc	2
	906418	Bushing Hitch 6' Rc	2
71	960327	Jack Side Crank	1
72	964737	Weld On Pivot Tube	1
73	966527	7/8" x 2-1/2" Hex Bolt (PI) - 5'	2
	907308	1-1/8" x 2-1/2" Hex Bolt (PI) - 6'	2
74	966532	Jack Clamp Rc	2
75	967140	1" x 10Ga Narrow Rim Wash (PI)	2
	907309	1-1/8" x 10Ga Narrow Rim Washer	2
80	966510	16" Solid Rubber Tire on Wheel	2
81	965523	Yoke Weldment	2
83	81722	7/8" Hex Nut - 5'	2
	907310	1-1/8" Hex Nut - 6'	2
84	81723	7/8" Lock Washer - 5'	2
	981765	1-1/8" Lock Washer (PI) - 6'	2
85	966524	Control Rod Pin 3/4" x 2-5/16"	1
86	966525	Control Rod Clevis Weldment - 5'	1
	902341	Control Rod Clevis Weldment - 6'	1
87	966526	Control Rod Weldment 1.240" x 50-1/2" - 5'	1
	906122	Control Rod Weldment 1.660" x 59-1/4" - 6'	1
88	81700	3/4" Hex Nut - 5'	1
	967142	1" Hex Nut (PI)	1
89	9812433	3/16" x 1-1/2" Cotter Pin (PI)	1
90	966584	Tube Weldment 61-3/4" - 5'	1
	966146	Tube Weldment 73-3/4" - 6'	1
91	967164	Pound In Grease Nipple	2
92	906414	5' Hitch Weldt	1
	906415	6' Hitch Weldt	1
93	966531	Clevis Pin 1" x 4-9/16"	1
94	966530	Front Swivel Clevis	1
95	964638	Hose Holder Clamp	1
96	9812434	1/4" x 1-1/2" Cotter Pin (PI)	1
97	967217	1" Slotted Hex Nut - 5' & 6'	1
98	966562	Cotter Pin 5x50 Rc	1
99	84522	1" I.D. SAE Flat Washer	2

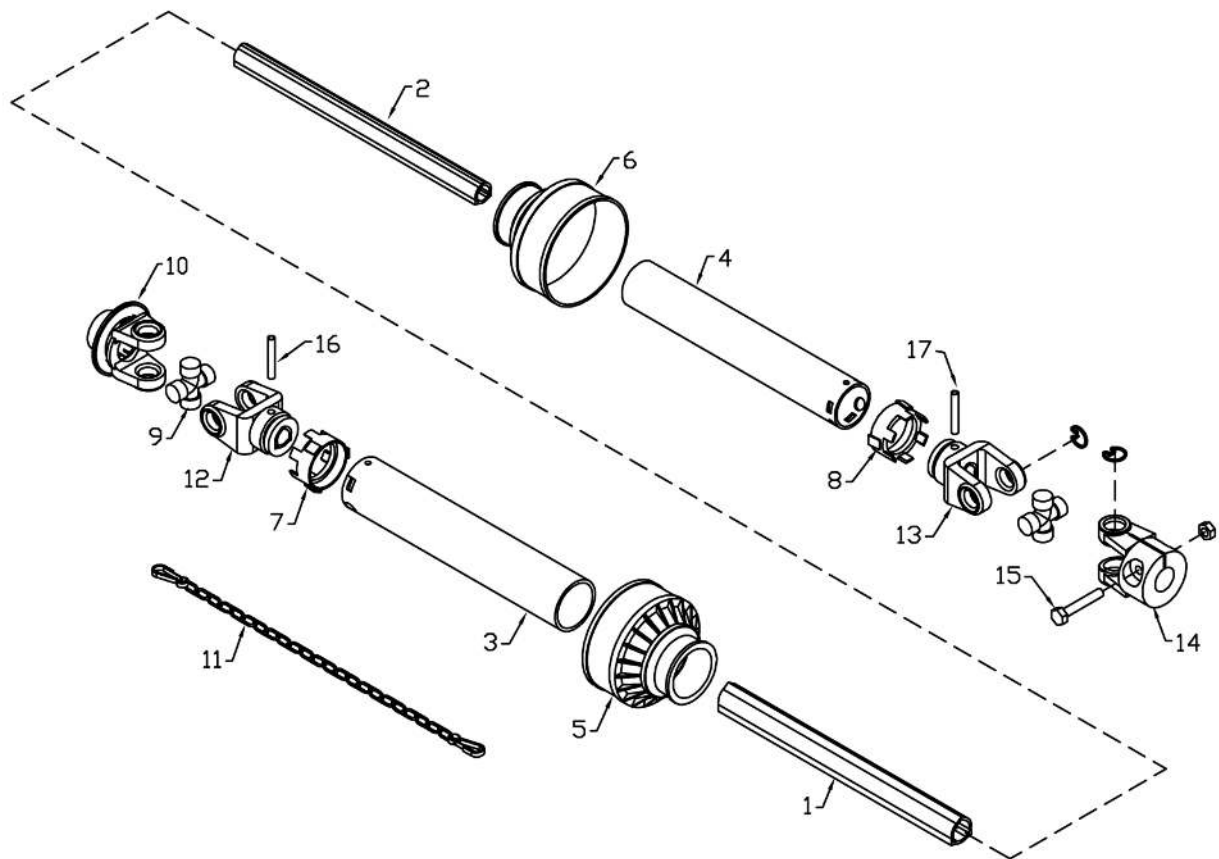
Chain Kit Drawing (Optional)



RC-09

Item	Part Number	Description
1	966586	Front Chain Holder, 5' - (60" Long)
	966147	Front Chain Holder, 6' - (72" Long)
2	966587	Front Chain Rod, 5' - (3/8" x 30-1/2")
	966148	Front Chain Rod, 6' - (3/8" x 36-3/8")
3	966588	Rear Center Chain Holder, 5' - (29" Long)
	966149	Rear Center Chain Holder, 6' - (32-1/4" Long)
4	966589	R.H. Rear Side Chain Holder, 5' - (23" Long)
	966150	R.H. Rear Side Chain Holder, 6' - (28" Long)
5	966587	Rear Center Chain Rod, 5' - (3/8" x 30-1/2")
	966151	Rear Center Chain Rod, 6' - (3/8" x 34")
6	966590	Rear Side Chain Rods, 5' - (3/8" x 24")
	966152	Rear Side Chain Rods, 6' - (3/8" x 28-7/8")
7	966591	1/4" x 6 Link Plated Chain (Front)
8	966596	1/4" x 5 Link Plated Chain (Rear)
9	81619	1/2" x 1" Hex Bolt
10	81637	1/2" Lock Washer
11	81636	1/2" Hex Nut
12	9812430	1/8" x 1" Cotter Pin
13	964001	7/16" I.D. x 10 Ga x 1" O.D. Flat Washer (Pl)
14	966593	L.H. Rear Side Chain Holder, 5' (23" Long)
	966594	L.H. Rear Side Chain Holder, 6' (28" Long)

Model 510 PTO Shaft Drawing



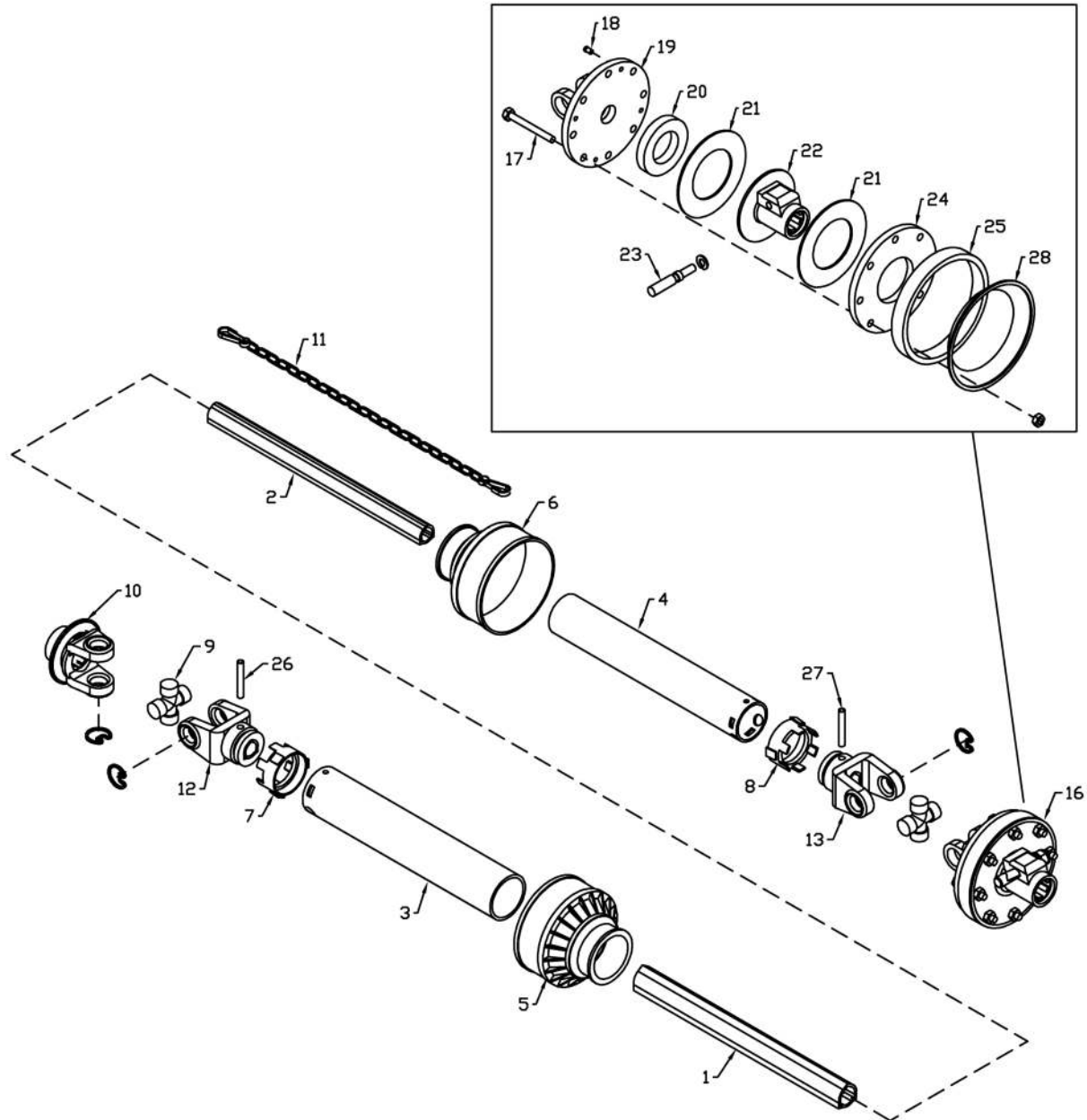
RC-11

Item	Part Number	Description
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Model 510 - (Shear Pin) Trailing Parts List		
	F0439	Shaft Complete
	907286	Tractor Half
	907287	Implement Half
1	936347	Outer Cardan Tube
2	936349	Inner Cardan Tube
3	966248	Outer Shield Tube
4	966249	Inner Shield Tube
5	966207	Outer Shield Cone
6	966208	Inner Shield Cone
7	966209	Outer Shield Collar
8	966210	Inner Shield Collar
9	966211	Repair Kit
10	907186	Quick Disconnect Yoke (6 Spline) 540 rpm
11	936402	Safety Chain
12	936344	Outer Tube Yoke
13	936345	Inner Tube Yoke
14	966216	Shear Yoke
15	9812034	Shear Bolt 1/2" x 3-1/2" Gr2
16	936350	Flexible Pin, Outer Yoke
17	936351	Flexible Pin, Inner Yoke

Item	Part Number	Description
Model 510 - (Shear Pin) 3-Point Hitch Parts List		
	F0438	Shaft Complete
	907292	Tractor Half
	907293	Implement Half
1	936346	Outer Cardan Tube
2	936348	Inner Cardan Tube
3	966205	Outer Shield Tube
4	966206	Inner Shield Tube
5	966207	Outer Shield Cone
6	966208	Inner Shield Cone
7	966209	Outer Shield Collar
8	966210	Inner Shield Collar
9	966211	Repair Kit
10	907186	Quick Disconnect Yoke (6 Spline) 540 rpm
11	936402	Safety Chain
12	936344	Outer Tube Yoke
13	936345	Inner Tube Yoke
14	966216	Shear Yoke
15	9812034	Shear Bolt 1/2" x 3-1/2" Gr2
16	936350	Flexible Pin, Outer Yoke
17	936351	Flexible Pin, Inner Yoke

Models 620 PTO Shaft Drawing



RC-12

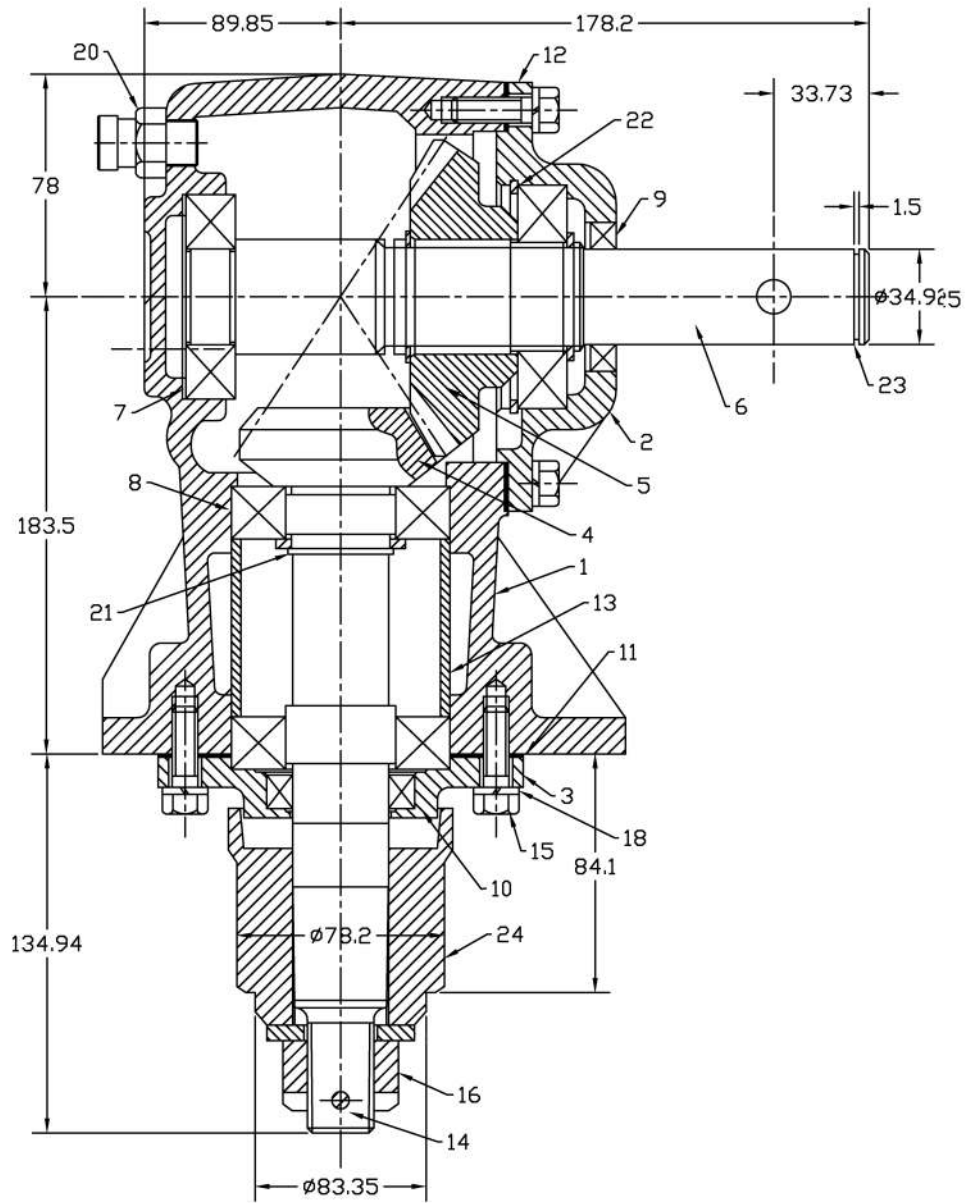
Item	Part Number	Description
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Model 620 - (Slip Clutch) 3-Point Hitch Parts List		
	F0440	Shaft Complete
	907295	Tractor Half
	907296	Implement Half
1	936354	Outer Cardan Tube
2	936356	Inner Cardan Tube
3	966230	Outer Shield Tube
4	966231	Inner Shield Tube
5	966232	Outer Shield Cone
6	936518	Inner Shield Cone
7	966234	Outer Shield Collar
8	966235	Inner Shield Collar
9	966236	Repair Kit
10	907294	Quick Disconnect Yoke (6-Spline) 540 rpm
11	936402	Safety Chain
12	936352	Outer Tube Yoke
13	936353	Inner Tube Yoke
16	936517	Torque Limiter FT42R/6
17	936519	Screw
18	936512	Screw
19	936520	Clutch Plate
20	966223	Bushing
21	936521	Lining
22	936523	Hub
23	910-075	Pivot
24	936522	Thrust Plate
25	936526	Spacer
26	936358	Flexible Pin, Outer Yoke
27	936359	Flexible Pin, Inner Yoke
28	908265	Spring

Item	Part Number	Description
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Model 620 - (Slip Clutch) Trailing Parts List		
	F0441	Shaft Complete
	907297	Tractor Half
	907298	Implement Half
1	936355	Outer Cardan Tube
2	936357	Inner Cardan Tube
3	966256	Outer Shield Tube
4	966257	Inner Shield Tube
5	966232	Outer Shield Cone
6	936518	Inner Shield Cone
7	966234	Outer Shield Collar
8	966235	Inner Shield Collar
9	966236	Repair Kit
10	907294	Quick Disconnect Yoke (6-Spline) 540 rpm
11	936402	Safety Chain
12	936352	Outer Tube Yoke
13	936353	Inner Tube Yoke
16	936517	Torque Limiter FT42R/6
17	936519	Screw
18	936512	Screw
19	936520	Clutch Plate
20	966223	Bushing
21	936521	Lining
22	936523	Hub
23	910-075	Pivot
24	936522	Thrust Plate
25	936526	Spacer
26	936358	Flexible Pin, Outer Yoke
27	936359	Flexible Pin, Inner Yoke
28	908265	Spring

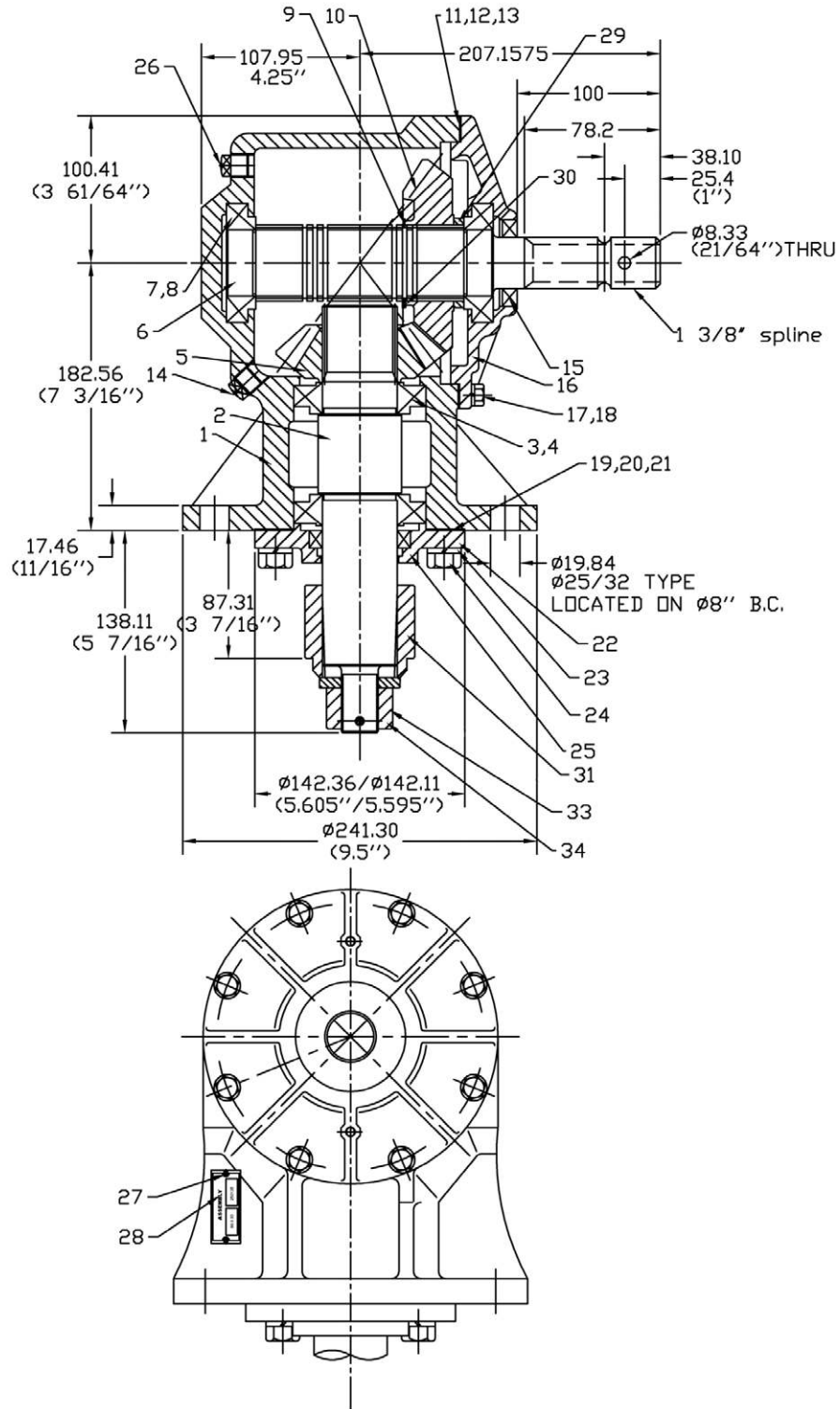
Model 510 Gearbox Drawing



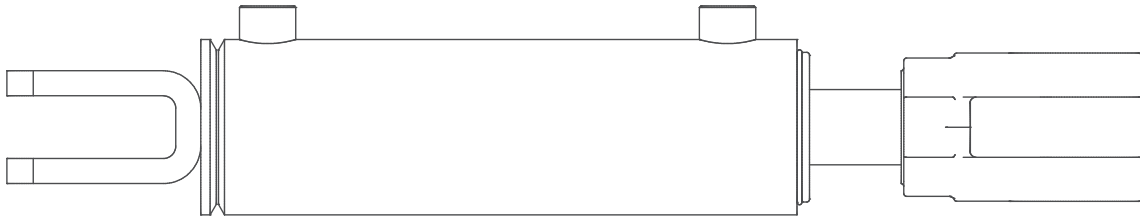
RC-15

Item	Part Number	Description
	966108	Gearbox Assembly
1	914018	Housing
2	914006	Cap - Input
3	914015	Cap - Output
4	904022	Gear - Output, w/Shaft 15T
5	904021	Gear - Input 22T
6	966824	Shaft - Input 1-3/8"
7	966542	Bearing - Ball 207K
8	966555	Bearing - Ball 208K
9	914005	Seal - Input 3LIP
10	914013	Seal - Output 3LIP
11	914019	Gasket - Output Cap
12	914007	Gasket - Input Cap
13	914001	Spacer
14	966562	Cotter Pin 5 x 50
15	86171	3/8" x 1-1/4" Hex Bolt
16	967217	1" Slotted Hex Nut
18	81593	3/8" Lockwasher
19	914016	1/8" Sq Head Pipe Plug
20	905429	1/2" Vent Plug
21	914008	Retaining Ring Eaton 916R
22	914003	Retaining Ring
23	966545	Snap Ring
24	904023	Blade Hub

Model 620 Gearbox Drawing



Item	Part Number	Description
	966109	Gearbox Assembly
1	966825	Housing
2	966830	Output Shaft
3	966832	Bearing Cone 368
4	966835	Bearing Cup 362
5	966828	Output Gear 13T
6	966831	Input Shaft
7	966833	Bearing Cone LM603049
8	966834	Bearing Cup LM603014
9	966846	Retaining Ring
10	966829	Input Gear 19T
11	966838	Input Cap Gasket 0.30mm
12	966839	Input Cap Gasket 0.15mm
13	966840	Input Cap Gasket 0.10mm
14	906427	1/4" Pipe Plug
15	966837	Input Seal
16	966827	Input Cap
17	811927	M10 X 30 Hex Bolt
18	81593	3/8" Lockwasher
19	966841	Output Cap Gasket 0.30mm
20	966842	Output Cap Gasket 0.15mm
21	966843	Output Cap Gasket 0.10mm
22	966826	Output Cap
23	81657	9/16" Lockwasher
24	812136	14mm x 35mm Hex Bolt
25	966836	Output Seal
26	906428	Vent Plug .25"
27	906429	Rivet
28	906430	I.D. Tag
29	966844	Spacer
30	906431	Spacer
31	966866	Blade Hub
33	967217	1" Slotted Hex Nut
34	966562	Cotter Pin 5mm x 50mm

3 x 8 Cylinder Drawing

Item	Part Number	Description
	24791M	Cylinder Complete
-	X3914	Seal Kit

Shipping Kit and Bundle Numbers

The following is a list of Kit Numbers for this product and the Bundle Numbers, Descriptions, and Quantities for each Kit.

Quantity	Bundle Number	Description
510 Rotary Cutter - 3-Point Hitch (Y510S)		
1	F1527	Deck Assembly w/ Shear Pin
1	F1531	Hitch
1	F1532	Tail Wheel Arm w/ Bracket, Pivot Arms, Wheel & Yoke
1	F0438	Shear Pin PTO
1	F1539	Carton
510 Rotary Cutter - Trailing (Y510T)		
1	F1527	Deck Assembly w/ Shear Pin
2	F9416	Wheel & Yoke
1	F0177	Tongue Assembly
1	F9431	Swivel Tube & Rod
1	F0439	Shear Pin PTO
1	F0180	Carton
620 Rotary Cutter - 3-Point Hitch (Y620S)		
1	F1528	Deck Assembly w/ Slip Clutch
1	F1541	Hitch
1	F1533	Tail Wheel Arm w/ Bracket, Pivot Arms, Wheel & Yoke
1	F0440	Slip Clutch PTO
1	F1540	Carton
620 Rotary Cutter - Trailing (Y620T)		
1	F1528	Deck Assembly w/ Slip Clutch
2	F9416	Wheel & Yoke
1	F0178	Tongue Assembly
1	F0138	Swivel Tube & Rod
1	F0441	Slip Clutch PTO
1	F0182	Carton

Optional Bundle Numbers

The following is a list of options available for the Kits listed above.

Quantity	Bundle Number	Description
1	F9415	Jack c/w Mounting Plate
1	F630	Hydraulic Cylinder & Hose Kit
1	Y514	510 3-Point Hitch Kit
1	Y625	620 3-Point Hitch Kit
1	Y515	510 Trailing Kit
1	Y626	620 Trailing Kit
1	Y517	510 Trailing Kit c/w 15" Rims (less tires)
1	Y627	620 Trailing Kit c/w 15" Rims (less tires)
1	Y207	Implement Tires 6.70 x 15" (set of 2)

Y524 - Optional Chain Kit for 510 Cutters		
1	F9435	Plates & Rods
1	F9436	Carton

Y624 - Optional Chain Kit for 620 Cutters		
1	F9437	Plates & Rods
1	F9438	Carton

Optional Lower Cutting Blades		
1	F9439	Blades for 5' Rotary Cutter (set of 2 / 24")
1	F9440	Blades for 6' Rotary Cutter (set of 2 / 30")

Farm King Limited Warranty

This document limits your warranty rights.

Base Limited Warranty

Buhler Industries Inc. provides this warranty only to original retail purchasers of its product. Buhler Industries Inc. warrants to such purchasers that all Buhler Industries Inc. manufactured parts and components used and serviced as provided for in the Operator's Manual shall be free from defects in materials and workmanship for a period following delivery to the original retail purchaser of 12 months (80 days for commercial applications). This limited warranty applies only to those parts and components manufactured by Buhler Industries Inc. Parts and components manufactured by others are subject to their manufacturer's warranties, if any.

Buhler Industries Inc. will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Buhler Industries Inc. within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Buhler Industries Inc. reserves the right to either inspect the product at the buyer's location or have it returned to the factory for inspection. Parts must be returned through the selling representative and the buyer must prepay transportation charges.

Buhler Industries Inc. will not be responsible for repairs or replacements that are necessitated, in whole or part, by the use of parts not manufactured by or obtained from Buhler Industries Inc. Under no circumstances are component parts warranted against normal wear and tear. There is no warranty on product pump seals, product pump bearings, rubber product hoses, pressure gauges, or other components that require replacement as part of normal maintenance. Also: Buckets and Bucket Tines carry no warranty, Bent Spears carry no warranty, Snowblower Fan Shafts carry no warranty, Mower Blades carry no warranty, Portable Auger Parts Have Two (2) Year Warranty, Loader Parts Have Two (2) Year Warranty. The purchaser is solely responsible for determining suitability of goods sold. This warranty is expressly in lieu of all other warranties expressed or implied. Buhler Industries Inc. will in no event be liable for any incidental or consequential damages whatsoever. Nor for any sum in excess of the price received for the goods for which liability is claimed.

Repair Parts Limited Warranty

Buhler Industries Inc. warrants Farm King replacement parts purchased after the expiration of the Buhler Industries Inc. Limited Warranty, and used and serviced as provided for in the Operator's Manual, to be free from defects in materials or workmanship for a period of thirty (30) days from the invoice date for the parts. Buhler Industries Inc. will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Buhler Industries Inc. within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Such parts must be shipped to Buhler Industries Inc. at the purchaser's expense.

What is Not Covered

Under no circumstances does this limited warranty cover any components or parts that have been subject to the following: negligence; alteration or modification not approved by Buhler Industries Inc.; misuse; improper storage; lack of reasonable and proper maintenance, service, or repair; normal wear; damage from failure to follow operating instructions; accident; and/or repairs that have been made with parts other than those manufactured, supplied, and or authorized by Buhler Industries Inc.

Authorized Dealer and Labor Costs

Repairs eligible for labor under this limited warranty must be made by Buhler Industries Inc. or an authorized Farm King dealer. Buhler Industries Inc. retains the exclusive discretion to determine whether it will pay labor costs for warranty repairs or replacements, and the amount of such costs that it will pay and the time in which the repairs will be made. If Buhler Industries Inc. determines that it will pay labor costs for warranty work, it will do so by issuing a credit to the dealer's or distributor's account. Buhler Industries Inc. will not approve or pay invoices sent for repairs that Buhler Industries Inc. has not previously approved. Warranty service does not extend the original term of this limited warranty.

Warranty Requirements

To be covered by warranty, each Farm King new product must be registered with Buhler Industries Inc. within thirty (30) days of delivery to original retail purchaser. If the customer decides to purchase replacement components before the warranty disposition of such components is determined, Buhler Industries Inc. will bill the customer for such components and then credit the replacement invoice for those components later determined to be covered by this limited warranty. Any such replacement components that are determined not be covered by this limited warranty will be subject to the terms of the invoice and shall be paid for by the purchaser.

Warranty Claims:

Warranty requests must be prepared on Buhler Industries Inc. Warranty Claim Forms with all requested information properly completed. Warranty Claims must be submitted within a thirty (30) day period from date of failure repair.

Warranty Labor:

Any labor subject to warranty must be authorized by Buhler Industries Inc. The labor rate for replacing defective parts, where applicable, will be credited at 100% of the dealer's posted shop rate.

Exclusive Effect of Warranty and Limitation of Liability

TO THE EXTENT PERMITTED BY LAW, BUHLER INDUSTRIES INC. DISCLAIMS ANY WARRANTIES, REPRESENTATIONS, OR PROMISES, EXPRESS OR IMPLIED, AS TO THE QUALITY, PERFORMANCE, OR FREEDOM FROM DEFECT OF THE COMPONENTS AND PARTS COVERED BY THIS WARRANTY AND NOT SPECIFICALLY PROVIDED FOR HEREIN.

TO THE EXTENT PERMITTED BY LAW, BUHLER INDUSTRIES INC. DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ON ITS PRODUCTS COVERED HEREIN, AND DISCLAIMS ANY RELIANCE BY THE PURCHASER ON BUHLER INDUSTRIES INC.'S SKILL OR JUDGMENT TO SELECT OR FURNISH GOODS FOR ANY PARTICULAR PURPOSE. THE PURCHASER'S ONLY AND EXCLUSIVE REMEDIES IN CONNECTION WITH THE BREACH OR PERFORMANCE OF ANY WARRANTY ON PRODUCTS MANUFACTURED BY BUHLER INDUSTRIES INC. ARE THOSE SET FORTH HEREIN. IN NO EVENT SHALL BUHLER INDUSTRIES INC. BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, BY WAY OF EXAMPLE ONLY AND NOT LIMITATION, LOSS OF CROPS, LOSS OF PROFITS OR REVENUE, OTHER COMMERCIAL LOSSES, INCONVENIENCE, OR COST OF REPLACEMENT OF RENTAL EQUIPMENT). IN NO EVENT SHALL FARM KING'S CONTRACT OR WARRANTY LIABILITY EXCEED THE PURCHASE PRICE OF THE PRODUCT.

(Note that some provinces or states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusion may not apply to you.) This warranty gives you specific legal rights and you may also have other rights, which vary from province to province or state to state.

Buhler Industries Inc. neither assumes nor authorizes any person or entity, including its selling representatives, to assume any other obligations or liability in connections with the sale of covered equipment, or to make any other warranties, representations, or promises, express or implied, as to the quality, performance, or freedom from defect of the components and parts covered herein. No one is authorized to alter, modify, or enlarge this limited warranty, or its exclusions, limitations and reservations.

Corrections of defects and improper workmanship in the manner, and for the applicable time periods, provided for herein shall constitute fulfillment of all responsibilities of Buhler Industries Inc. to the purchaser, and Buhler Industries Inc. shall not be liable in negligence, contract, or on any other basis with respect to the subject equipment.

This limited warranty is subject to any existing conditions of supply which may directly affect Buhler Industries Inc.'s ability to obtain materials or manufacture replacement parts.

Buhler Industries Inc. reserves the right to make improvements in design or changes in specifications to its products at anytime, without incurring any obligation to owners of units previously sold.

Government Legislation:

Warranty terms and conditions are subject to provincial or state legislation.

Important Note: This warranty does not apply to rentals.

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