

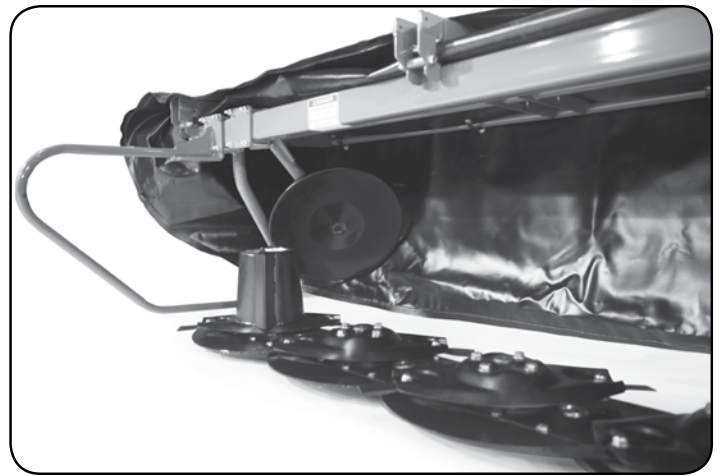
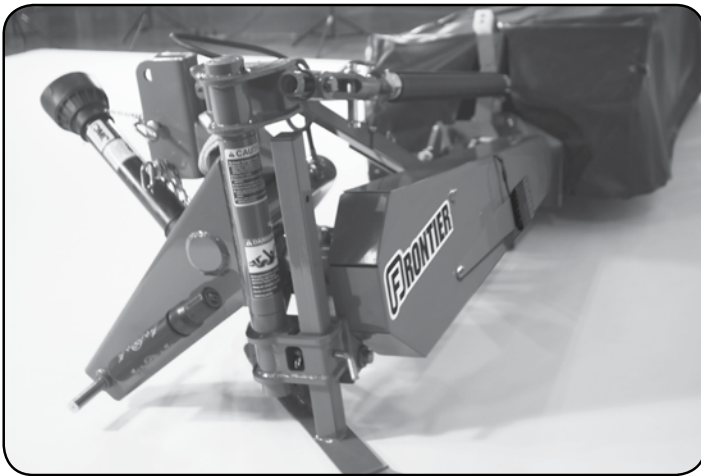
OPERATOR'S MANUAL

DISC MOWER

DM5050

DM5060

DM5070



FRONTIERTM

Introduction

Foreward



Frontier DM5070 Rotary Disc Mower

READ THIS MANUAL carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage. This manual and safety signs on your machine may also be available in other languages. (See your John Deere dealer to order.)

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your machine and should remain with the machine when you sell it.

MEASUREMENTS in this manual are given in both metric and customary U.S. unit equivalents. Use only correct replacement parts and fasteners. Metric and inch fasteners may require a specific metric or inch wrench.

RIGHT-HAND AND LEFT-HAND sides are determined by facing in the direction the implement will travel when going forward.

WRITE PRODUCT IDENTIFICATION NUMBERS (P.I.N.) in the Specification section. Accurately record

all the numbers to help in tracing the machine should it be stolen. Your dealer also needs these numbers when you order parts. File the identification numbers in a secure place off the machine.

WARRANTY is provided as part of John Deere's support program for customers who operate and maintain their equipment as described in this manual. The warranty is explained on the warranty certificate which you should have received from your dealer. This warranty provides you the assurance that John Deere will back its products where defects appear within the warranty period. In some circumstances, John Deere also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements may be denied. Setting fuel delivery above specifications or otherwise overpowering machines will result in such action.

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General Information

The purpose of this manual is to assist you in operating and maintaining your disc mower for years of service. Read it carefully. The information and instructions in this manual 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

Some illustrations in this manual may show the disc mower with safety shields removed to provide a better view. The disc mower 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. Blade rotation is clockwise as viewed from the top of the mower.

All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

Safety

Recognize Safety Information

This is a safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.



Understand Signal Words

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards.

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.



Follow Safety Instructions

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere dealer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your John Deere dealer.



Safety

Operate Mower Safely

Before each use, inspect entire machine. Check tightness of all nuts and bolts, particularly those securing the disks and knives.

Keep all shields and cover in place.

Stop the tractor engine and wait until all moving parts have stopped before leaving operator's station to adjust, lubricate, clean or unclog machine.

Never hand feed material into machine.

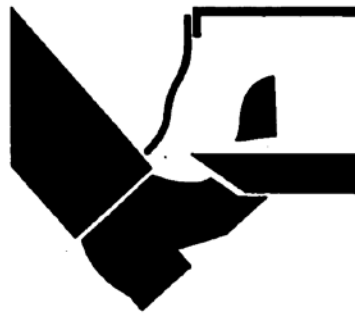
Do not lean against, sit or stand on cutterbar cover or its supporting framework.

Make certain everyone is clear of machine before starting tractor engine or beginning operation.

Do not operate mower with cutterbar raised to vertical (transport) position.

Always operate machine at rated speed.

Drive slowly over rough ground.



Keep Riders Off Machine

Keep riders off.

Riders are subject to injury such as being struck by foreign objects and being thrown off of the machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner.



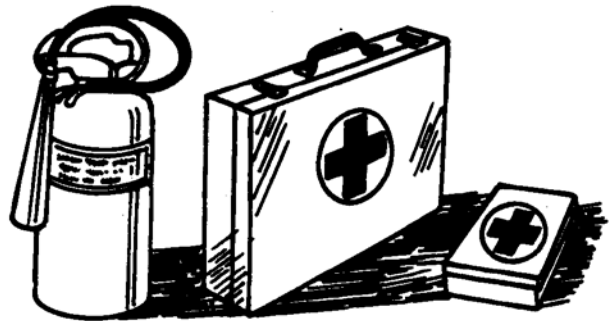
Safety

Prepare for Emergencies

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



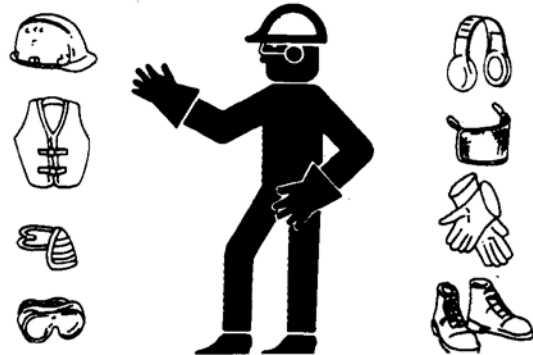
Wear Protective Clothing

Wear close fitting clothing and safety equipment appropriate to the job.

Prolonged exposure to loud noise can cause impairment or loss of hearing.

Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.

Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.



Safety

Handle Chemical Products Safely

Direct exposure to hazardous chemicals can cause serious injury. Potentially hazardous chemicals used with John Deere equipment include such items as lubricants, coolants, paints, and adhesives.

A Material Safety Data Sheet (MSDS) provides specific details on chemical products: physical and health hazards, safety procedures, and emergency response techniques.

Check the MSDS before you start any job using a hazardous chemical. That way you will know exactly what the risks are and how to do the job safely. Then follow procedures and recommended equipment.



Stay Clear of Rotating Drivelines

Entanglement in rotating driveline can cause serious injury or death.

Keep tractor master shield and driveline shields in place at all times. Make sure rotating shields turn freely.

Wear close fitting clothing. Stop the engine and be sure PTO driveline is stopped before making adjustments, connections, or cleaning out PTO driven equipment.



Safety

Avoid Injury from Thrown Objects

Extreme care must be exercised to avoid injury from thrown objects. Do not, under any circumstances, operate mower when other people are in the vicinity. Stones and other objects can be thrown great distances by the rotating cutting blades.

The cutterbar cover/curtain is very important to reduce the potential for thrown objects. Always keep this cover down when operating the mower. Replace the cover, using genuine John Deere parts or their equivalent, if it should become worn or damaged.

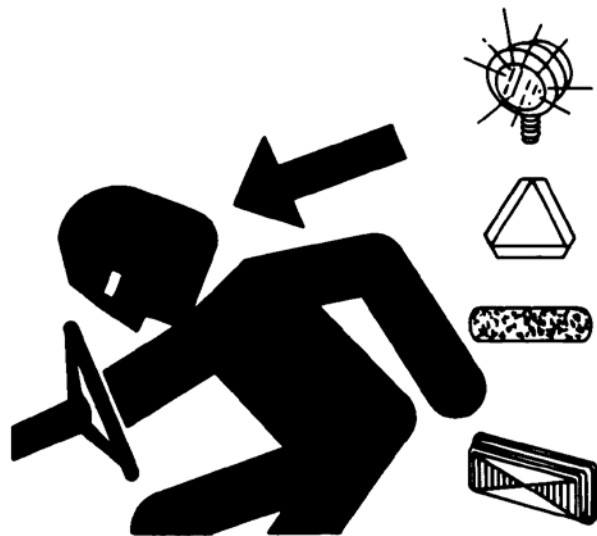
For additional operator protection from thrown objects, it is recommended that this mower be used with a tractor equipped with a complete operator enclosure.



Use Safety Lights and Devices

Prevent collisions between other road users, slow moving tractors with attachments or towed equipment, and self-propelled machines on public roads. Frequently check for traffic from the rear, especially in turns, and use turn signal lights.

Use headlights, flashing warning lights, and turn signals day and night. Follow local regulations for equipment lighting and marking. Keep lighting and marking visible, clean, and in good working order. Replace or repair lighting and marking that has been damaged or lost.



Safety

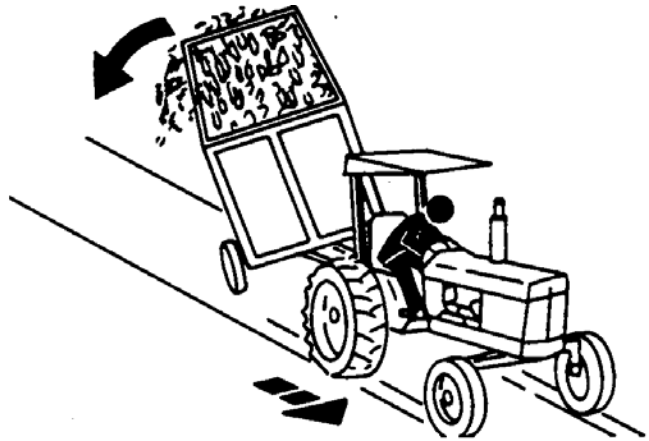
Tow Loads Safely

Stopping distance increases with speed and weight of towed loads, and on slopes. Towed loads with or without brakes that are too heavy for the tractor or are towed too fast can cause loss of control. Consider the total weight of the equipment and its load.

Observe these recommended maximum road speeds, or local speed limits which may be lower:

- If towed equipment does not have brakes, do not travel more than 32 km/h (20 mph) and do not tow loads more than 1.5 times the tractor weight.
- If towed equipment has brakes, do not travel more than 40 km/h (25 mph) and do not tow loads more than 4.5 times the tractor weight.

Ensure the load does not exceed the recommended weight ratio. Add ballast to recommended maximum for tractor, lighten the load, or get a heavier towing unit. The tractor must be heavy and powerful enough with adequate braking power for the towed load. Use additional caution when towing loads under adverse surface conditions, when turning, and on inclines.



Safety

Practice Safe Maintenance

Understand service procedure before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is moving. Keep hands, feet, and clothing from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.

Securely support any machine elements that must be raised for service work.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

On self-propelled equipment, disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.

On towed implements, disconnect wiring harnesses from tractor before servicing electrical system components or welding on machine.



Avoid Heating Near Pressurized Fluid Lines

Flammable spray can be generated by heating near pressurized fluid lines, resulting in severe burns to yourself and bystanders. Do not heat by welding, soldering, or using a torch near pressurized fluid lines or other flammable materials. Pressurized lines can be accidentally cut when heat goes beyond the immediate flame area.



Safety

Remove Paint Before Welding or Heating

Avoid potentially toxic fumes and dust.

Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch.

Remove paint before heating:

- Remove paint a minimum of 100 mm (4 in.) from area to be affected by heating. If paint cannot be removed, wear an approved respirator before heating or welding.
- If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.

Do not use a chlorinated solvent in areas where welding will take place.

Do all work in an area that is well ventilated to carry toxic fumes and dust away.

Dispose of paint and solvent properly.



Store Attachments Safely

Stored attachments such as dual wheels, cage wheels, and loaders can fall and cause serious injury or death.

Securely store attachments and implements to prevent falling. Keep playing children and bystanders away from storage area.



Safety

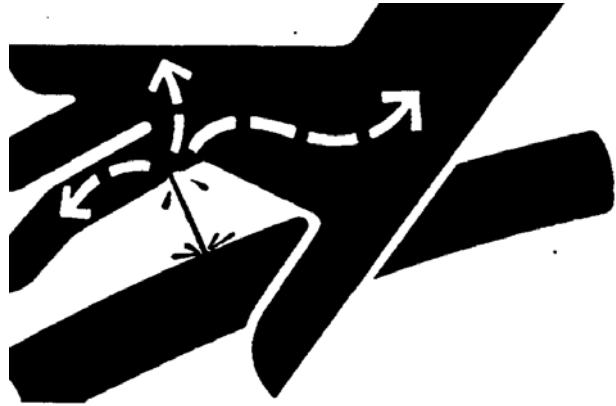
Avoid High-Pressure Fluids

Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A.



Dispose of Waste Properly

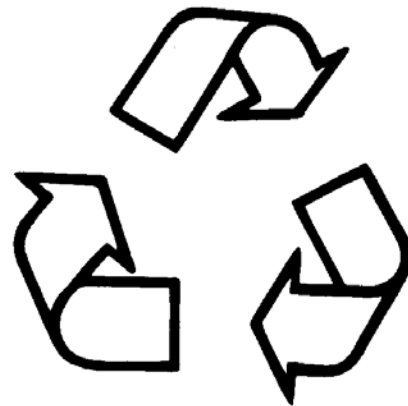
Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with John Deere equipment include such items as oil, fuel, coolant, brake fluid, filters, and batteries.

Use leakproof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

Do not pour waste onto the ground, down a drain, or into any water source.

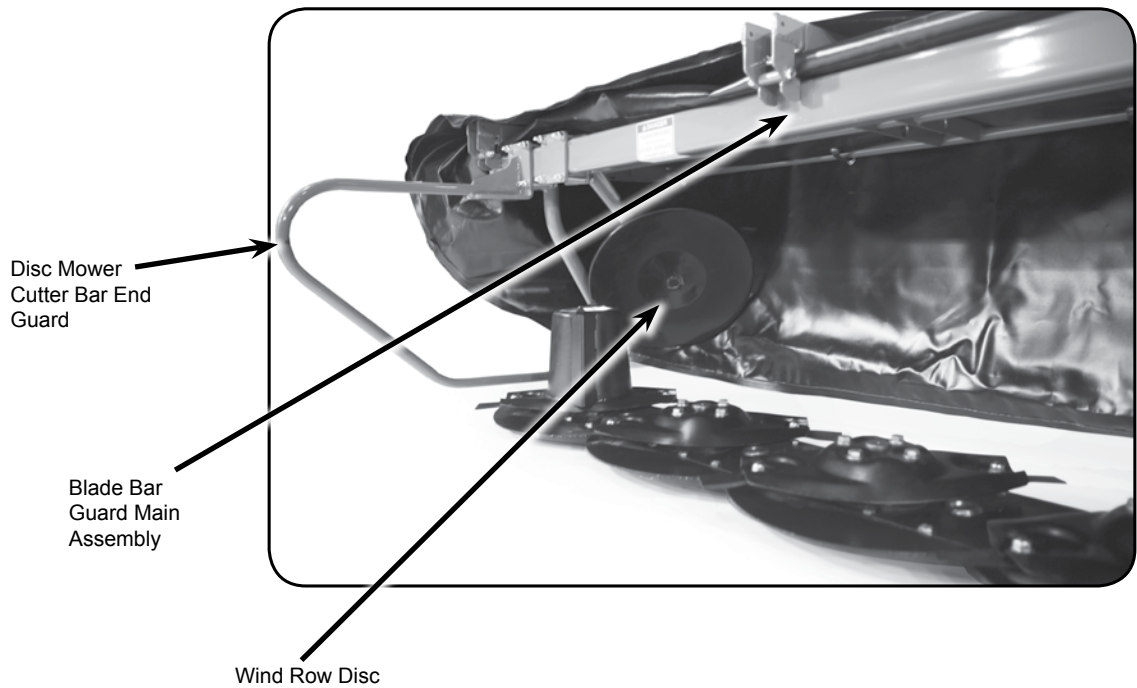
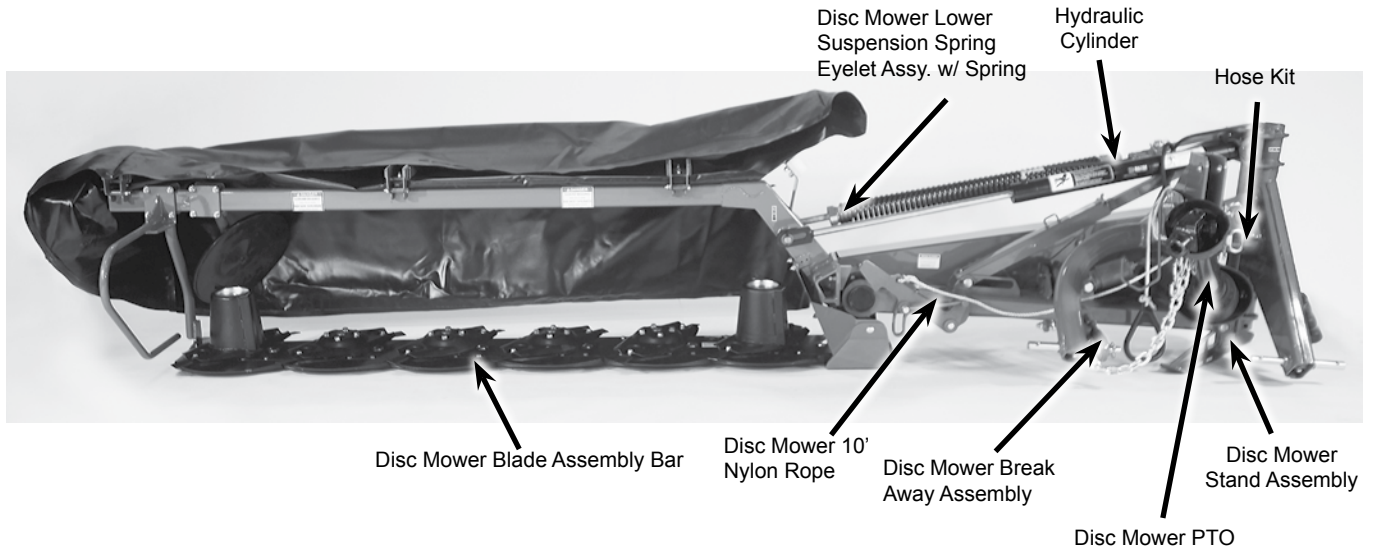
Air conditioning refrigerants escaping into the air can damage the Earth's atmosphere. Government regulations may require a certified air conditioning service center to recover and recycle used air conditioning refrigerants.

Inquire on the proper way to recycle or dispose of waste from your local environmental or recycling center, or from your John Deere dealer.

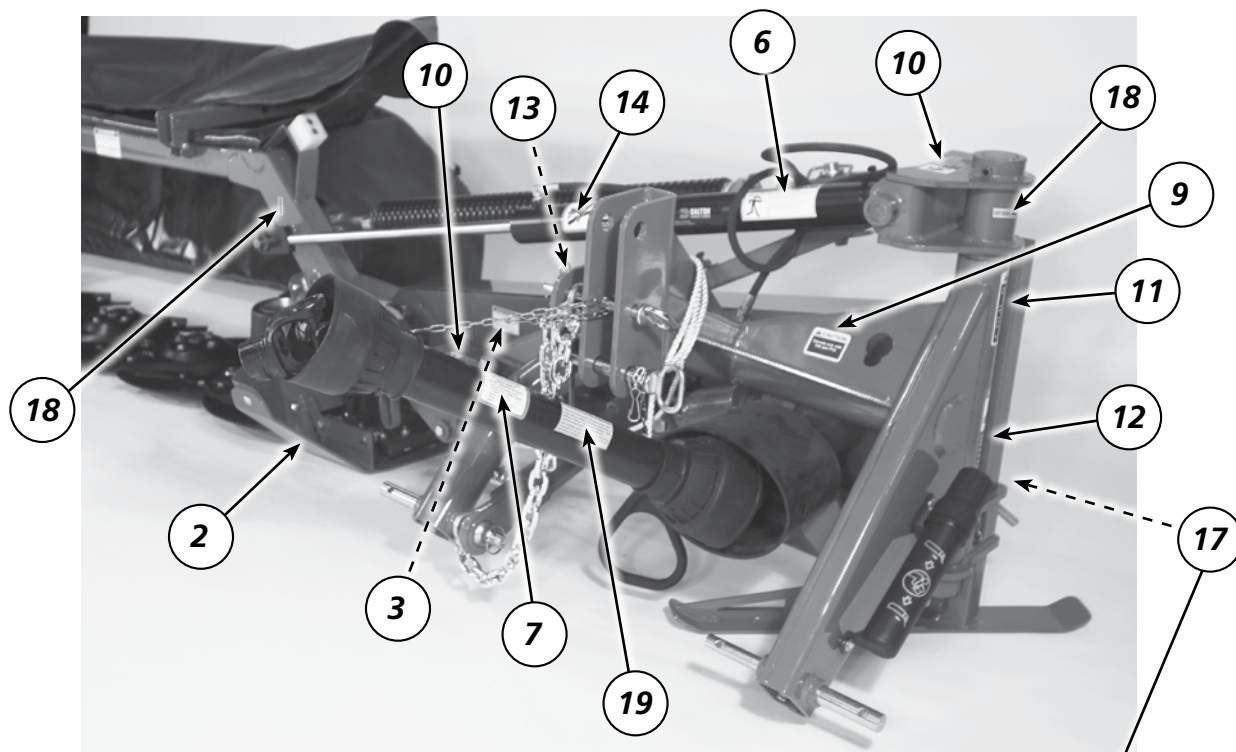


Major Components

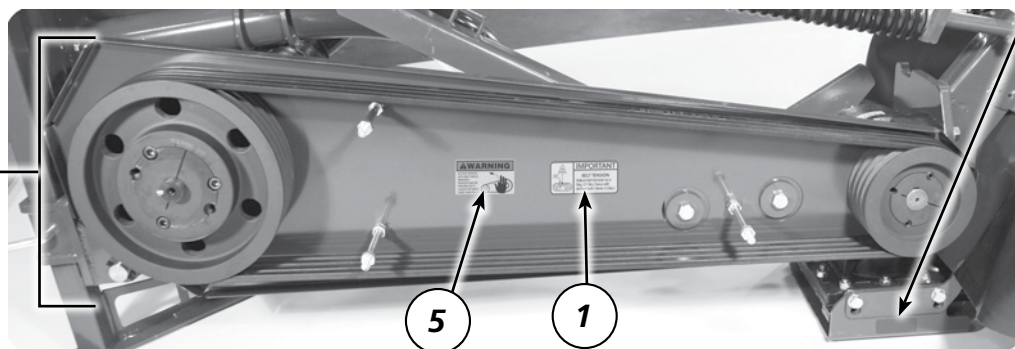
Your disc mower has been carefully designed for a variety of foliage. This manual is provided to give you the necessary operation and maintenance instructions for keeping your finish disc mower in excellent operating condition. Please read this manual thoroughly. Understand the purpose of the controls and how to use them. Observe all safety precautions on the machine and as noted throughout this manual.



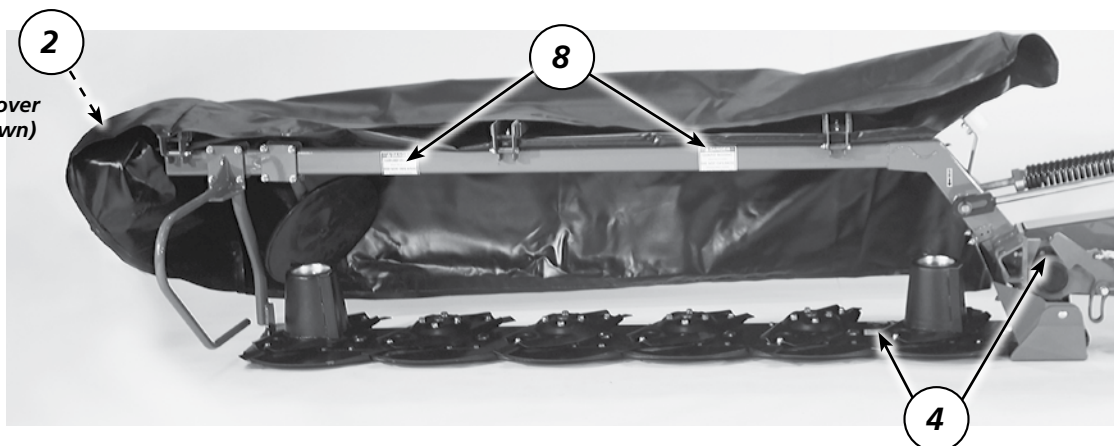
Decals & Labels



15 16
 Belt Guard
 Not Shown
 to show label
 placement



Under Cover
 (not shown)



Decals & Labels

1

2

3

4

5

6

7

8

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10

11

12

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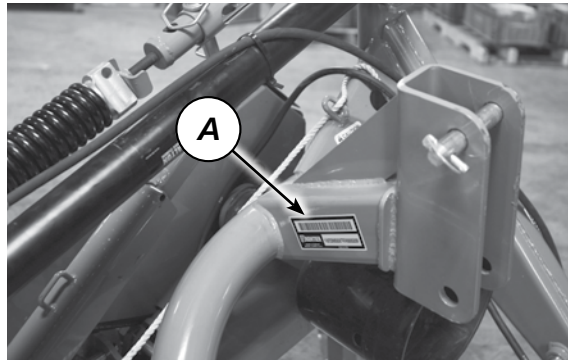
Specifications

Model	DM5050	DM5060	DM5070
General Specifications			
Category	Category I or II	Category I or II	Category II
Quick Coupler Compliant	Yes (Cat. I or Cat. II)	Yes (Cat. I or Cat. II)	Yes (Cat. II)
Overall Width, in.	44"	44"	44"
Overall Length, in.	153"	169"	186"
Overall Height, in.	48"	48"	48"
Operating Weight (Approx), lb.	874 lbs.	975 lbs.	1143 lbs.
Belt Drive	Set of 4 V-Belts w/Tensioner	Set of 4 V-Belts w/Tensioner	Set of 4 V-Belts w/Tensioner
Discharge	Rear	Rear	Rear
Operation Angle	+25°/-25°	+25°/-25°	+25°/-25°
Type	Rotary Disc	Rotary Disc	Rotary Disc
Break-Away Angle	16°	16°	16°
Tractor Compatibility			
PTO Drive	540 rpm (Overrun clutch standard)	540 rpm (Overrun clutch standard)	540 rpm (Overrun clutch standard)
Tractor PTO 2WD (minimum)	40	45	55
Tractor PTO 4WD (minimum)	45	50	60
Tractor PTO (maximum)	150	150	150
Hydraulics	1 Single-Acting Valve	1 Single-Acting Valve	1 Single-Acting Valve
Transport Dimensions (Depending on Tractor Size/Tire Config)			
Overall Transport Height	99"	115"	131"
Overall Transport Width	67-1/2"	67-1/2"	67-1/2"
Overall Transport Length	45"	45"	45"
Cutting Information			
Cutting Width	6' - 6"	7' - 9"	9'
Average Swath Width	4' - 6"	5' - 9"	7'
Cutting Height	1.625" - 1.875"	1.625" - 1.875"	1.625" - 1.875"
Knife Spindles	5	6	7
Knife Quantity	10	12	14
Knife Tip Speed	3,000 (IPS)	3,000 (IPS)	3,000 (IPS)
Knife Overlap	4.5"	4.5"	4.5"
Knife Thickness	.162"	.162"	.162"
Knife Width	2"	2"	2"
Knife Type	Heat Treated	Heat Treated	Heat Treated
Degree of Lift	6°	6°	6°
Options			
Inner Swath Board	Standard	Standard	Standard
Outer Swath Board	Optional	Optional	Optional
Inner Disc Cone	Standard	Standard	Standard
Outer Disc Cone	Standard	Standard	Standard
Safety Breakaway	Standard	Standard	Standard
Setup Time	90 min	90 min	90 min
Warranty	1 year	1 year	1 year
Oil Capacity			
Gearbox (90W)	0.5 qt	0.5 qt	0.5 qt
Cutterbar (90W)	2.5 qt	2.5 qt	2.5 qt

Specifications

Record Product Identification Number

Each machine has the identification plate shown. The letters and numbers stamped on the plates identify a component or assembly. ALL these characters are needed when ordering parts or identifying a machine for any John Deere product support program. Also, they are needed for law enforcement to trace your machine if it is ever stolen. ACCURATELY record these characters in the spaces provided.



When ordering parts, always furnish model and serial number as given on serial number plate. It will assist your John Deere dealer in giving you prompt and efficient service.

The mower serial number plate (A) is located on hitch frame. Record it below.

Rotary Disc Mower Serial Number _____

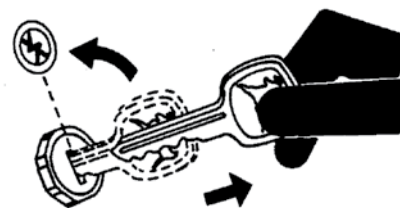
Keep Proof of Ownership

1. Maintain in a secure location an up-to-date inventory of all product and component serial numbers.
2. Regularly verify that identification plates have not been removed. Report any evidence of tampering to law enforcement agencies and order duplicate plates.
3. Other steps you can take:
 - Mark your machine with your own numbering system
 - Take color photographs from several angles of each machine



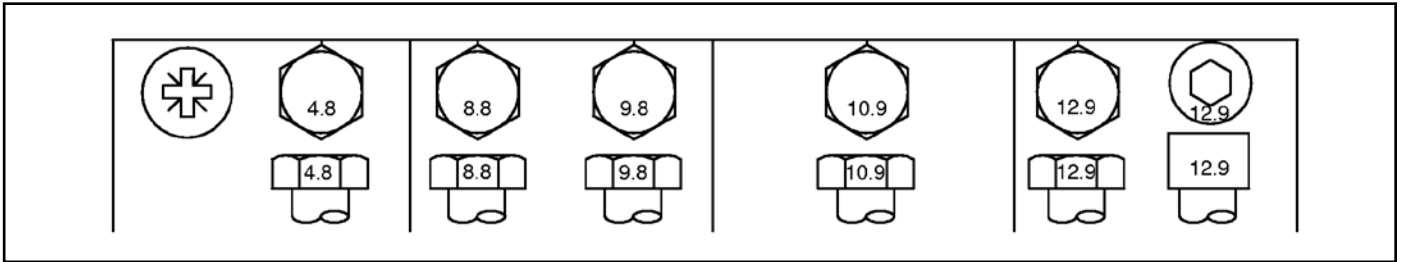
Keep Machines Secure

1. Install vandal-proof devices.
2. When machine is in storage:
 - Lower equipment to the ground
 - Set wheels to widest position to make loading more difficult
 - Remove any keys and batteries
3. When parking indoors, put large equipment in front of exits and lock your storage buildings.
4. When parking outdoors, store in a well-lighted and fenced area.
5. Make note of suspicious activity and report any thefts immediately to law enforcement agencies.
6. Notify your John Deere dealer of any losses.



Specifications

Metric Bolt and Cap Screw Torque Values



Bolt or Screw	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Lubricated ^a		Dry ^b		Lubricated ^a		Dry ^b		Lubricated ^a		Dry ^b		Lubricated ^a		Dry ^b	
Size	N-m	lb-in	N-m	lb-in	N-m	lb-in	N-m	lb-in	N-m	lb-in	N-m	lb-in	N-m	lb-in	N-m	lb-in
M6	4.7	42	6	53	8.9	79	11.3	100	13	115	16.5	146	15.5	137	19.5	172
M8	11.5	102	14.5	128	22	194	27.5	243	32	23.5	40	29.5	37	27.5	47	35
M10	23	204	29	21	43	32	55	40	63	46	80	59	75	55	95	70
M12	40	29.5	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	46	80	59	120	88	150	110	175	130	220	165	205	150	260	190
M16	100	74	125	92	190	140	240	175	275	200	350	255	320	235	400	300
M18	135	100	170	125	265	195	330	245	375	275	475	350	440	325	560	410
M20	190	140	245	180	375	275	475	350	530	390	675	500	625	460	790	580
M22	265	195	330	245	510	375	650	480	725	535	920	680	850	625	1080	800
M24	330	245	425	315	650	480	820	600	920	680	1150	850	1080	800	1350	1000
M27	490	360	625	460	950	700	1200	885	1350	1000	1700	1250	1580	1160	2000	1475
M30	660	490	850	625	1290	950	1630	1200	1850	1350	2300	1700	2140	1580	2700	2000
M33	900	665	1150	850	1750	1300	2200	1625	2500	1850	3150	2325	2900	2150	3700	2730
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2770	4750	3500

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For stainless steel fasteners or for nuts on U-bolts, see the tightening instructions for the specific application. Tighten plastic insert or crimped steel type lock nuts by turning the nut to the dry torque shown in the chart, unless different instructions are given for the specific application.

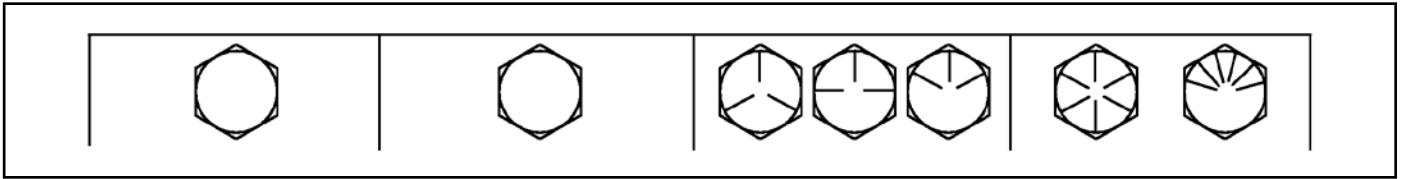
Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical property class. Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original. Make sure fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

^a"Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or M20 and larger fasteners with JDM F13C zinc flake coating.

^b"Dry" means plain or zinc plated without any lubrication, or M6 to M18 fasteners with JDM F13B zinc flake coating.

Specifications

Unified Inch Bolt and Cap Screw Torque Values



Bolt or Screw	SAE Grade 1				SAE Grade 2 ^a				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
	Lubricated ^b		Dry ^c		Lubricated ^b		Dry ^c		Lubricated ^b		Dry ^c		Lubricated ^b		Dry ^c	
Size	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in
1/4	3.7	33	4.7	42	6	53	7.5	66	9.5	84	12	106	13.5	10	17	150
									N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in
5/16	7.7	68	9.8	86	12	106	15.5	137	19.5	172	25	221	28	20.5	35	26
			N·m	lb-in	N·m	lb-in	N·m	lb-in								
3/8	13.5	120	17.5	155	22	194	27	240	35	26	44	32.5	49	36	63	46
	N·m	lb-in														
7/16	22	194	28	20.5	35	26	44	32.5	56	41	70	52	80	59	100	74
1/2	34	25	42	31	53	39	67	49	85	63	110	80	120	88	155	115
9/16	48	35.5	60	45	76	56	95	70	125	92	155	115	175	130	220	165
5/8	67	49	85	63	105	77	135	100	170	125	215	160	240	175	305	225
3/4	120	88	150	110	190	140	240	175	300	220	380	280	425	315	540	400
7/8	190	140	240	175	190	140	240	175	490	360	615	455	690	510	870	640
1	285	210	360	265	285	210	360	265	730	540	920	680	1030	760	1300	960
1-1/8	400	300	510	375	400	300	510	375	910	670	1150	850	1450	1075	1850	1350
1-1/4	570	420	725	535	570	420	725	535	1280	945	1630	1200	2050	1500	2600	1920
1-3/8	750	550	950	700	750	550	950	700	1700	1250	2140	1580	2700	2000	3400	2500
1-1/2	990	730	1250	930	990	730	1250	930	2250	1650	2850	2100	3600	2650	4550	3350

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For plastic insert or crimped steel type lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application. Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Replace fasteners with the same or higher grade. If higher grade fasteners are used, tighten these to the strength of the original. Make sure fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

^aGrade 2 applies for hex cap screws (not hex bolts) up to 6. in (152 mm) long. Grade 1 applies for hex cap screws over 6 in. (152 mm) long, and for all other types of bolts and screws of any length.

^b"Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or 7/8 in. and larger fasteners with JDM F13C zinc flake coating.

^c"Dry" means plain or zinc plated without any lubrication, or 1/4 to 3/4 in. fasteners with JDM F13B zinc flake coating.

Preparation

SELECTING TRACTOR PTO SPEED

IMPORTANT: Never operate a mower equipped for 540 rpm PTO drive with a tractor equipped to 1000 rpm PTO.

**Always run tractor at rated PTO speed.
Overspeed will cause damage to drive system.**

Refer to your tractor Operator's Manual to change PTO stub shaft, if necessary.

POSITIONING DRAWBAR

IMPORTANT: To prevent damage to the driveline, remove, shorten, or place drawbar to one side. If equipped with clevis, remove it.

PREPARING THE MOWER

Perform the following procedures before operating the mower:

Gearbox

- Check oil levels. (See Lubrication and Maintenance section.)
- Check hardware torque. (See Specification section.)
- Remove any material wound on gearbox shafts.
- Check oil seals for leakage.

Blades and Blade Holder

- Inspect blades for wear or damage. (See Maintenance section.)
- Check blade hardware torque. (See Specification section.)
- Check blade holder hardware torque. (See Specification section.)

Hitch Pins

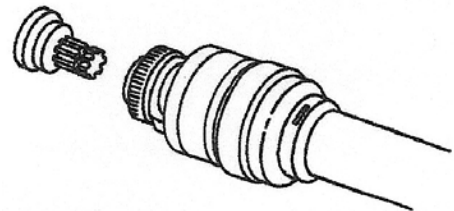
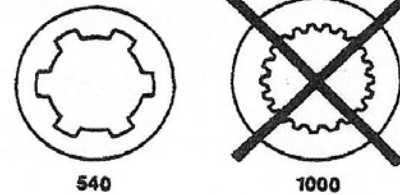
- Insure all bolts on mower are fastened securely.
- Hardware on the lower clevises need to be snug, but do not over tighten because the clevises need to pivot as the mower hitch floats.

Lubricating the Mower

- Lubricate mower and driveline. (See Lubrication and Maintenance section.)

Initial Setup

- Adjusting desired float. (See Operation section.)
- Adjusting for desired cut height and angle. (See Troubleshooting section.)
- Setup to tractor. (See Operation section.)



CHECKING DRIVELINE SHIELDS



DANGER

Entanglement in rotating driveline can cause serious injury or death. Disengage PTO, engage parking brake or place transmission in "PARK", shut off tractor, and remove key before working near driveline.

Check driveline shields by making sure they rotate freely.

Lubricate or repair if necessary.



Preparation

Final Inspection and Adjustments

IMPORTANT: PTO driveline may be too long for some tractor models, causing tractor transaxle damage. Modify driveline if necessary.

Attach disc mower to tractor and check mower-to-tractor driveline telescoping length clearance.
(See CHECKING DRIVELINE/MOWER CLEARANCE in Attaching section.)

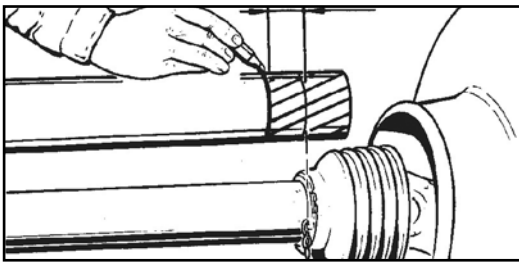
IMPORTANT: Blade hardware MUST be checked after the first hour and every eight (8) hours thereafter.

Check blade hardware torque. Re-tighten hardware after one hour of operation and every eight (8) hours thereafter.

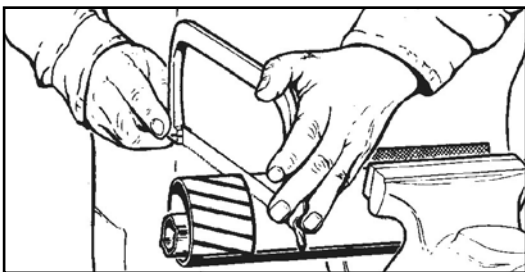
Check belt tension prior to using to insure approximately ½" deflection with 11 lbs of force (this may have to be adjusted periodically and optimum tension may vary slightly between cutters)

(See MAINTENANCE BEFORE EACH USE in Lubrication and Maintenance section.)

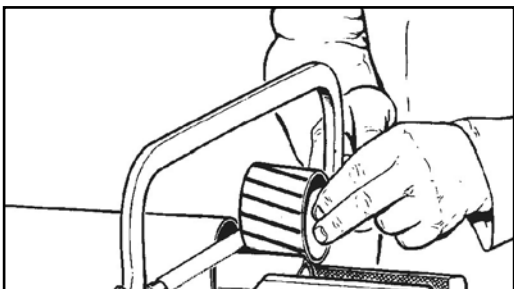
MODIFY PTO DRIVELINE (IF NECESSARY)



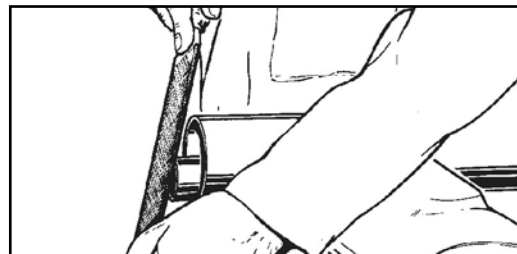
1. To adjust the length, hold the half-shafts next to each other in the shortest working position and mark them.



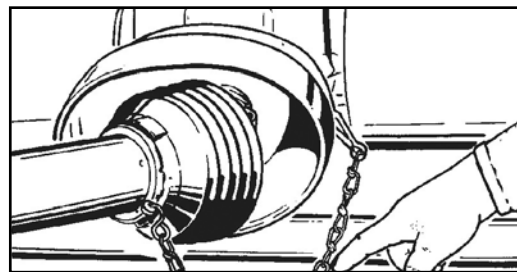
2. Shorten inner and outer guard tubes equally.



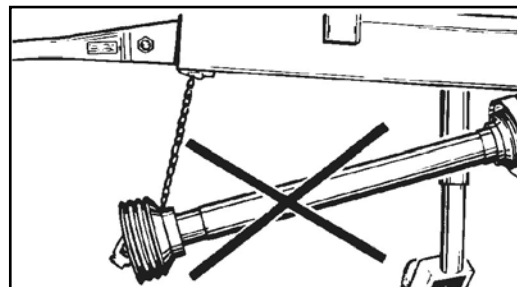
3. Shorten inner and outer sliding profiles by the same length as the guard tubes.



4. Round off all sharp edges and remove burrs. Grease sliding profiles. No other changes may be made to PTO drive shaft and guard.




5. Chains must be fitted so as to allow sufficient articulation of the shaft in all working positions.




6. The PTO drive shaft must not be suspended from the chains!

Attaching


ATTACHING DISC MOWER TO TRACTOR

WARNING  **BE CERTAIN that disc mower is completely lubricated, that gear box is filled with 90 weight oil and that all grease fittings have been lubricated before putting mower into service.**

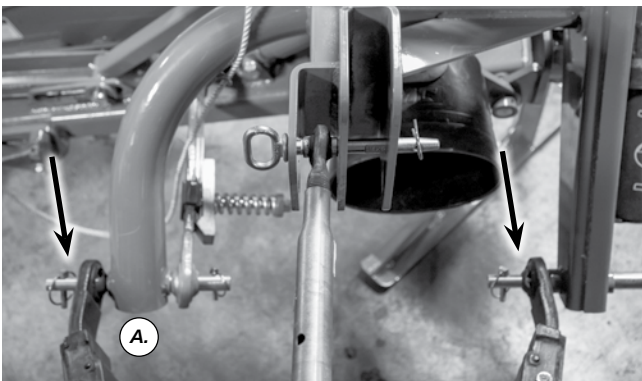
CAUTION  **To avoid bodily injury or machine damage whenever an implement is attached, put transmission in PARK position and check the full range of hitch for interference, binding, or PTO separation. Do not stand between tractor and implement.**

1. Slowly back tractor up to mower, being careful to line up lift arm holes on tractor with pins on mower.



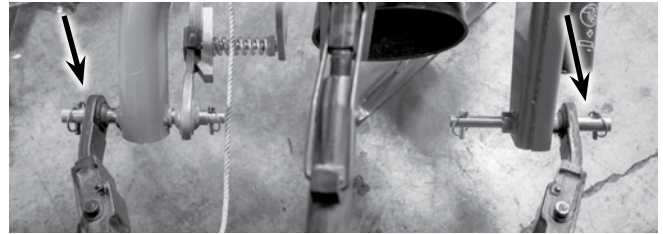
WARNING  **WARNING: DO NOT stand between mower and tractor when tractor is hooking up to mower.**


2a. For Category I hookup - Slide lift arms on tractor over Category I hitch pins on mower.



NOTE: Right hand pin (right-hand side) is interchangeable from Category I to Category II by flipping. (Shown on left hand side of this picture - Figure A)

2b. For Category II hookup - Slide lift arms on tractor over Category II hitch pins on mower.



DANGER  **Shut off tractor engine before attaching PTO driveline. Entanglement in rotating driveline can cause serious injury or death.**

3. Attach PTO shaft to tractor.



4. Attach top link from tractor to mower.



5. Attach safety chains on PTO shaft to top link.



6. Put release rope into cab and connect. Do not pull tight.

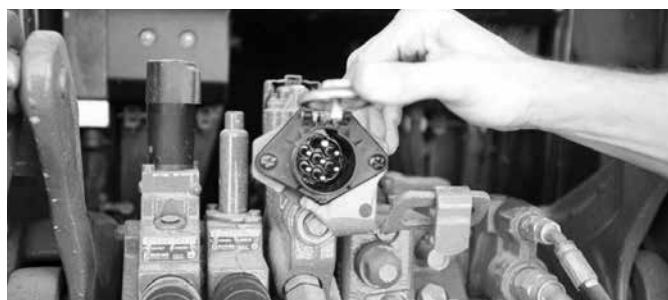


Attaching / Preparing for Transport

7. Attach hydraulic hose to tractor.



8. Attach light kit using the 7-pin connector.



9. Raise lift arms up slightly to release parking lock.



10. Raise parking stand all the way up and latch.



11. Raise lift arms.

12. Raise blade up with hydraulics.

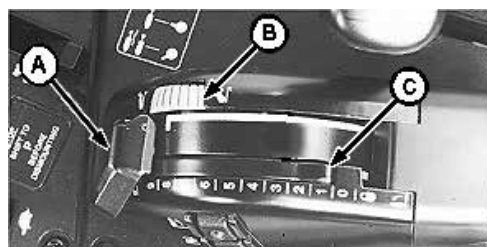


NOTE: Stop-chain (provided with mower) is used only if tractor is NOT equipped with a depth stop to hold position of rockshaft/hitch control lever.

13. Tractor WITH depth stop for rockshaft/hitch control lever

To keep mower at a set working depth; Move stop (C) against rockshaft/hitch control lever (A) by turning stop wheel (B). Hitch will lower to same working depth each time.

Tractor WITHOUT depth stop for rockshaft/hitch control lever
To keep mower main frame at a set working depth; Attach stop-chain (provided with mower) to an open hole location in the tractor's center link attachment clevis. Make sure stop-chain is tight and clearance between ground and lower hitch pins is not less than specifications. Raise mower and adjust stop-chain length as necessary.



(John Deere 7000 Series Tractor Shown)
*See Troubleshooting Section

PREPARING TO TRANSPORT

1. Disengage the PTO on mower.
2. Wait for PTO to come to complete stop.
3. Raise mower cover to ensure that it locks into open position.

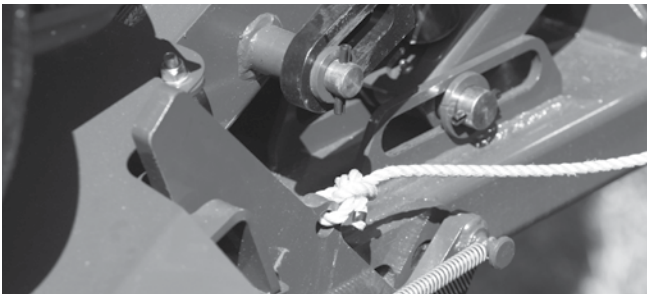


4. Using tractor lift arm, raise lift slowly to fully up position.

Preparing For Transport / Lubrication



5. Use hydraulic to slowly raise bar into upright position.
6. Make sure safety latch is secure before transporting.
Watch height of mower for low over hang areas.



BEFORE PUTTING MOWER INTO SERVICE

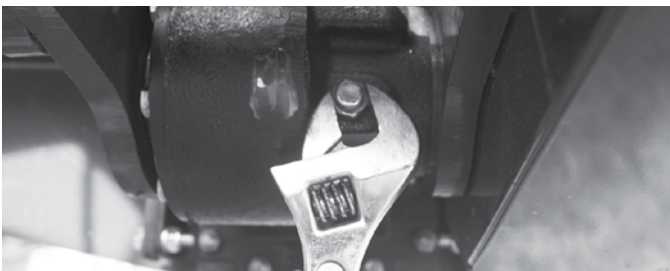
IMPORTANT: This mower was shipped without oil in gearboxes and without grease in grease fittings. UNIT MUST BE SERVICED BEFORE USING.

Before mowing for the first time and after every 8 hours:

1. Check oil in gearbox
2. Check oil in blades
3. Grease all fittings on mower (see page 25)

FILLING GEAR BOX

1. Use 90 weight oil to fill gear box.
2. With blade or tractor hooked to it (in transport position) remove fill plug.



3. Fill gearbox with oil until oil runs out gear box fill plug.
4. Replace fill plug.

FILLING CUTTER BAR WITH OIL

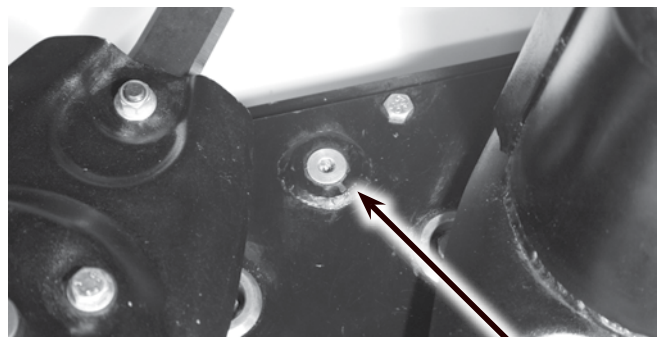
1. Fold cover back for better access to bar.



2. Cutter bar must be on tractor and perpendicular to ground.



3. Use 90 weight oil to fill cutter bar. (refer to page 16 for oil capacities)
4. Remove oil fill plug on the cutter bar between 1st and 2nd cutter heads.



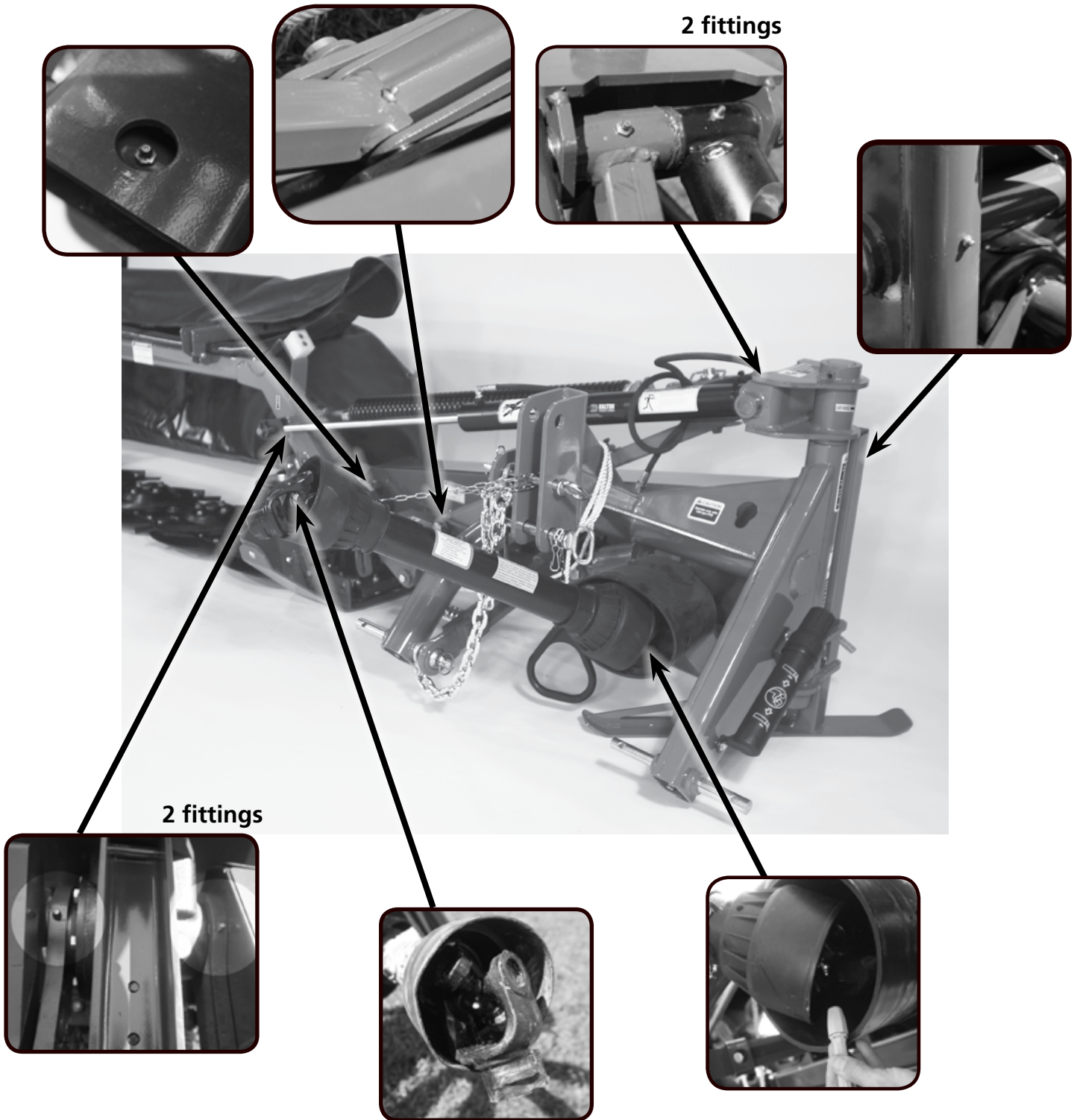
5. Use 90 weight oil to fill cutter bar until oil runs out of fill plug
6. Replace plug and tighten.



DO NOT overfill gearbox. This could cause damage to oil seals and can cause permanent damage to the gearbox. This issue will not be covered under warranty.

Lubrication

Before mowing the first time and every 8 hours, grease all 9 fittings on mower:



Detaching

DETACHING MOWER FROM TRACTOR

- Using hydraulics to lower blade all the way down:
 - Lower blade slightly to remove tension on safety latch.
 - Pull rope to hold safety latch up.



To prevent personal injury caused by unexpected movement:

- Park machine on a level surface.
- Engage tractor parking brake and/or place transmission in "Park".
- Disengage PTO.
- Shut off tractor engine and remove key.

- Lower blade remaining distance to ground.



- Engage parking lock.



- Lower parking stand lock into lock position.



- Lower lift arm slowly until all the way down.

- Unhook safety chains from PTO shaft.



- Unhook PTO shaft from tractor.



- Depress release button fully
- Pull shaft backward to remove from tractor PTO shaft.
- Place PTO shaft in Hanger.



- Remove hydraulic line from tractor.



- Unhook top link from mower.



- Release stabilizer bars (if equipped) on tractor lift arms so they will move freely.



Operation

10. Remove pins from hitch pins.



11. Slide lift arms from mower hitch pins.



12. Slowly pull tractor forward.



*Quick-hitches hook-up in same pin orientation and locations

KEEP RIDERS OFF MACHINE

⚠
DANGER Keep riders off. Riders are subject to injury or death such as being struck by foreign objects and being thrown off the machine. Riders may also fall off and be run over by machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner.

FOLLOW SAFE OPERATING PROCEDURES

1. Pull rope or safety latch to moderate tension.



2. With tractor running and in park, use hydraulic to lower blade slightly until safety latch pressure is released. Pull rope to disengage safety latch.

3. Using hydraulic, slowly lower blade all the way down to horizontal.
4. Unlock the cover to insure that cover is down and locked into place.



5. Just prior to mowing, lower lift arm until floater is approximately in middle of slide.

NOTE: Once you begin mowing, this pin must be approximately in the middle of slide to allow bar to float up and down properly.



6. If first time mowing, level adjustments need to be made. Otherwise, proceed to step 7.
A. Lower mower until primary skid plate is on ground and travel floater is in middle of slide.

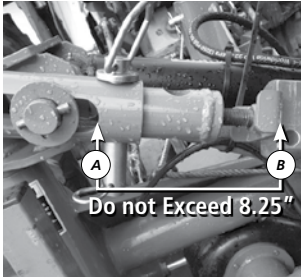


- B. Using lift arm adjustments, adjust mower until hitch pins are horizontally level with ground.
C. Make sure stabilizer arms on tractor lift arms are locked firmly in place so mower will not move side to side when mowing.

Operation

D. Set mower float – Mower float needs to be set so equal weight is on inside skid plate and outside end of cutter bar to allow for level float.

- 1) Start by placing macro-adjustment pin in middle setting on float spring.



WARNING: Never exceed a maximum length of 8.25" between points A and B. Over compression of the spring when the mower is in transport position will occur, resulting in damage to the spring assembly.

- a) Too much tension on float spring will cause end of cutter bar to curve up too much and too quickly.
 - b) Not enough float will cause end to be heavy and drag. You will have to mow slowly at first to observe cutter bar behavior.
- 2) Once desired float level is attained, smaller adjustments can be made with the micro adjustment.
 - a) Raise bar slightly until pressure is off spring.
 - b) Use hammer to tap lock collar and loosen lock collar and back out several turns.



- c) Grab spring with both hands and turn.
 1. For more float on end of bar, rotate spring clockwise.
 2. For less float on end of bar tighten counter clockwise.


E. Set mowing height- Set mower cutting to desired height by adjusting top link on mower.


7. Once all adjustments are complete, lower blade completely to ground, ensure cover is in place.
8. Floater is approximately in the middle of the slide. Closer to the top will allow more upward travel of the mower and closer to the bottom will allow more downward. (this can be adjusted by changing lift arm height)



NOTE: Once you begin mowing, this pin must be kept in the middle of slide to allow bar to float up and down properly. If pin is not in middle of slide, reset float per section 6D.

9. Engage PTO and begin to mow slowly. Watch cutter behavior in case further adjustments are needed.


DANGER Stay clear of rotating driveline. Do not operate without driveline shields in place and in good condition. Failure to heed these warnings may result in personal injury or death.


DANGER To help prevent severe injury or death to you or someone else:
Never operate mower when other

people are in the vicinity. Debris can be thrown hundreds of feet. Keep all deflectors in place. Before starting machine, lower to the ground. Engage tractor PTO and gradually increase the speed.

Operate tractor at rated PTO speed. If engine speed is too slow or too fast, machine may not perform properly.

Where conditions make it necessary to slow ground speed, shift to a lower gear rather than reducing engine speed. The engine will maintain rated speed and keep mower running at optimum cutting speed.

Operate machine from tractor seat only. Never adjust machine while in motion.

Slow down when turning or traveling over rough ground.

Avoid holes when operating on hillsides. Tractor roll-over could result.

Shut off tractor engine and engage tractor parking brake and/or place transmission in "Park" when leaving tractor. Remove key when leaving tractor unattended.

Components behind shields may rotate several minutes after power is shut off. Look and listen for evidence of rotation before removing shielding.

Operation / Maintenance

⚠ **DANGER** Rotating mower blades. Stand clear until all motion has stopped. To avoid an accidental fall from tractor and possible injury by mower, it is recommended that tractor be equipped with rollover protective system (ROPS) and a seatbelt be used by the operator for all mowing operations.

Note: Tractor forward speed should be controlled by gear selection, not engine speed. For maximum cutting efficiency, forward speed should allow mower to maintain a constant, maximum blade speed. If mower stalls or tractor engine bogs, disengage PTO. Before re-engaging PTO, position mower in a cut area and reduce tractor throttle to idle. If disc mower continuously stalls, select lower gear and/or increase cutting height.

TRIP AND TRIP RESET

Your mower is equipped with an automatic trip mechanism in the event that the mower bar strikes something solid like a large rock or tree stump. This allows operator to stop before further damage is incurred. (1" of exposed thread is factory preset this may be adjusted for different conditions)



1. If mechanism is tripped, stop quickly to prevent any further damage.
2. Disengage PTO
3. Lower lift arms all the way down.
4. Slowly back up until trip mechanism is reset.
5. Reset lift arm to proper position.
6. Re-engage PTO.
7. Continue mowing.

NOTE: Over time, if trip mechanism becomes loose or worn it may trip prematurely. If so, tighten spring on trip.

LUBRICATING AND MAINTAINING MACHINE SAFELY

⚠ **DANGER** Help prevent bodily injury or death caused by entanglement in rotating driveline or blades. Entanglement in rotating driveline or being struck by blades can cause serious injury or death.

Components will be hot after operation. Let all components cool before servicing.

Replace all shields after lubricating or servicing.

MAINTENANCE CHECK LIST

Perform scheduled maintenance as outlined below. Lower machine to ground, turn off tractor and set parking brake before doing maintenance inspections or work. All bolts should be torqued as recommended in the Torque Specifications unless otherwise indicated.

MAINTENANCE BEFORE EACH USE

⚠ **CAUTION** Do not clean, lubricate, or adjust machine while it is in motion.

1. Check tractor tire air pressure. Refer to tractor operator's manual.
2. Check blades and spindles to be sure that no foreign objects such as wire or steel strapping bands are wrapped around them.
3. Check blade bolts for tightness.

IMPORTANT: Operating with loose blade hardware will damage the blade holder and blades.

4. Inspect blades for wear. Always replace all blades and bolts on blade holder at the same time.
5. Make certain driveline shields are in place and in good repair.
6. Before each use, check oil level and perform lubrication. See gearbox filling and lubrication procedures on page 17.
7. During operation, listen for abnormal sounds which might indicate loose part, damaged bearings, or other damage.

Maintenance

WARNING

DO NOT attempt to modify blade, such as hard surfacing, heat or cold treating and/or by any other method.

WARNING

DO NOT try to straighten a blade that is bent. Never weld a broken or cracked blade. ALWAYS replace with a new blade to assure safety.

WARNING

Only use DM50 series replacement knives. Aftermarket brands could result in injury or damage to the cutter.

IMPORTANT: Operating with blades that are not alike will cause vibration. Always replace worn or broken blades in pairs. Never replace a single blade. Check blades regularly for wear or breakage.

REPLACING BLADES ON DISCS

1. Using 17mm socket, loosen nut on blade



2. Remove bolt and put bolt with new blade



3. Attach new blade to disc

NOTE: MAKE SURE THAT BLADES ARE PROPERLY ORIENTED. DISCS TURN IN DIFFERENT DIRECTIONS SO CUTTING BLADES ARE SPECIFICALLY EDGED.



REPLACING DISCS

1. Using 18mm socket, remove 4 bolts on top of disc



2. Lift disc off shaft, you may need to peck disc with hammer to free from shaft.
3. Put blades on new disc and place new disc on shaft.
4. Replace bolts and tighten.

NOTE: FOR TALL END DISCS USE HAMMER AND SCREWDRIVER TO PRY OFF TOP CAP. USE LONG EXTENSION ON RATCHET TO REMOVE 4 BOLTS.



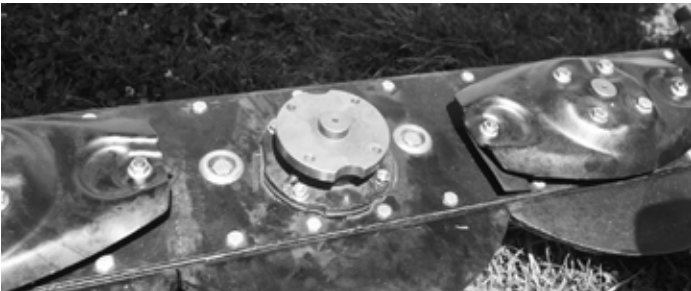
Maintenance

REPLACING DISC DRIVE GEAR

1. Remove 4 bolts on top of blade holder to remove blade holder



2. Remove 4 bolts in disc gear assembly and remove




4. Put new assembly in and retighten
5. Tighten all 4 bolts on disc gear assembly
6. Reattach blade holder and tighten all 4 bolts.



3. Note home position of assembly before removal.
Important: Make sure it is reinstalled the same way for timing purposes. Simply make a mark in the correct position before disassembling so that when re-assembling it is exactly the same as before.

Service

PRACTICE SAFE SERVICE PROCEDURES

 **CAUTION** To help prevent personal injury caused by unexpected movement, be sure to service machine on a level surface.

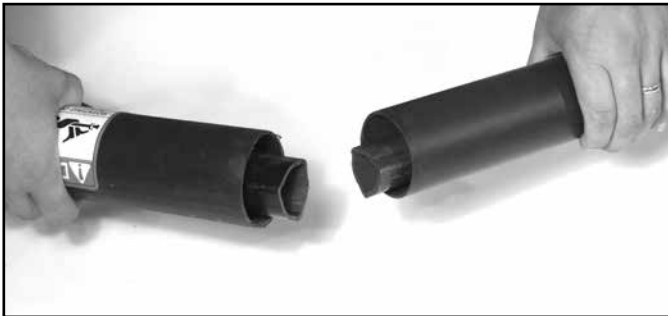
Before servicing or adjusting machine connected to a tractor:

1. Lower machine to the ground.
2. Engage tractor parking brake and/or place transmission in "Park".
3. Disengage PTO.
4. Shut off tractor engine and remove key.
5. Wait until all moving parts have stopped.
6. Disconnect PTO driveline from tractor.

The blades and blade holders may rotate after PTO is shut off. Look and listen for rotating driveline to stop before working on the mower.

DISASSEMBLING DRIVELINE SHIELD

1. Unhook driveline safety chain from one end of driveline.
2. Separate driveline into two (2) pieces.



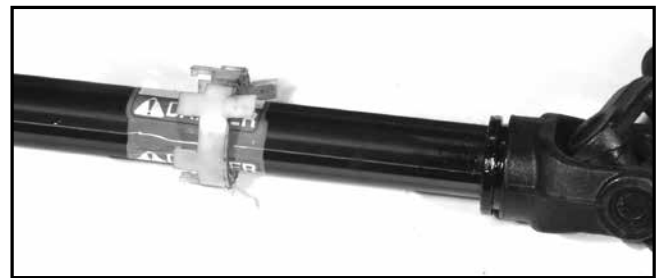
3. Using pliers, screwdriver or punch, depress white tabs in each of the release holes around the driveline shield. Driveline tab should "snap" somewhat when firmly depressed.




4. Slide shield collar back.



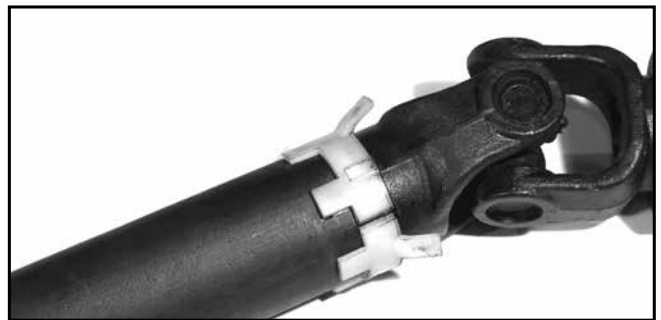
5. If needed, separate white tab collar and slide shield tube back.



 **CAUTION** DO NOT operate PTO shaft without shielding installed.

RE-ASSEMBLING DRIVELINE SHIELD

1. Replace white tabbed collar in groove of PTO shaft.

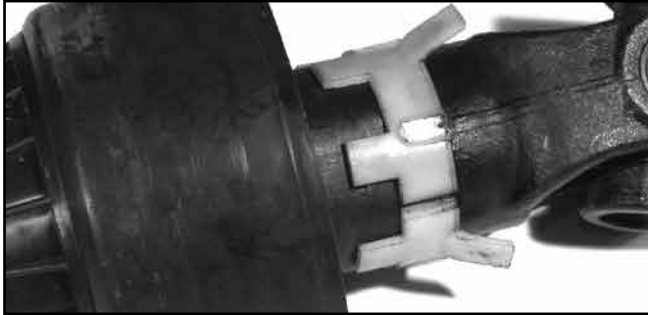


2. Slide driveline shield tube over white tab collar. Align slots/holes with holes in tube.



Service

- Slide universal joint cover up tube toward universal joint. Align grease fitting on shield with white square tabs on collars. This will properly align the position notch and all three (3) tabs.



- Slide collar shield into place until locked.

DRIVE BELT REPLACEMENT

When replacing drive belts, it is recommended that all 4 belts be replaced.

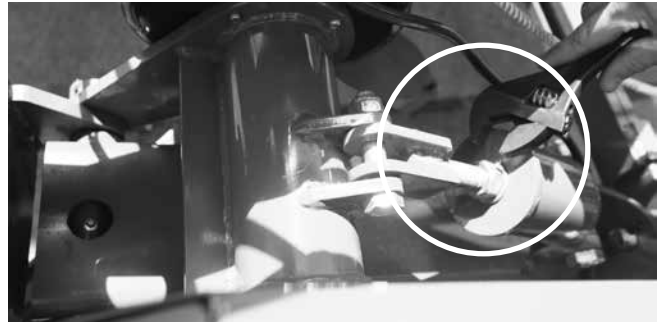
- Lower blade to ground.
- Remove PTO shaft from tractor.
- Using 19mm socket, remove light kit.



- Remove drive belt cover.



- Loosen belt tension by adjusting the tensioner shown below. Make adjustments until drive belt is loose enough to remove from pulley.



- Pull carefully on center of belts to rotate pulleys. It may be necessary to rotate blade holder pans to get pulleys to move.

CAUTION Be careful of pinch points between belts and pulleys



- Walk belts off one at a time from each pulley.

Service / Storage

PUTTING ON NEW BELTS

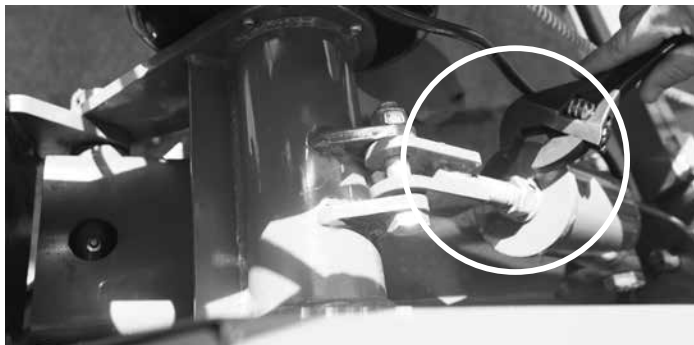
1. Take new belt and place on top of pulley and push into v-groove on pulley.



2. Remove hand to rotate pulley slowly.
3. "Reverse Walk" belts back onto pulley one at a time.



4. Retighten belt tension by adjusting the tensioner shown below. Tighten belts until 1/2 inch of deflection in all belts.



5. Replace drive belt cover and tighten.

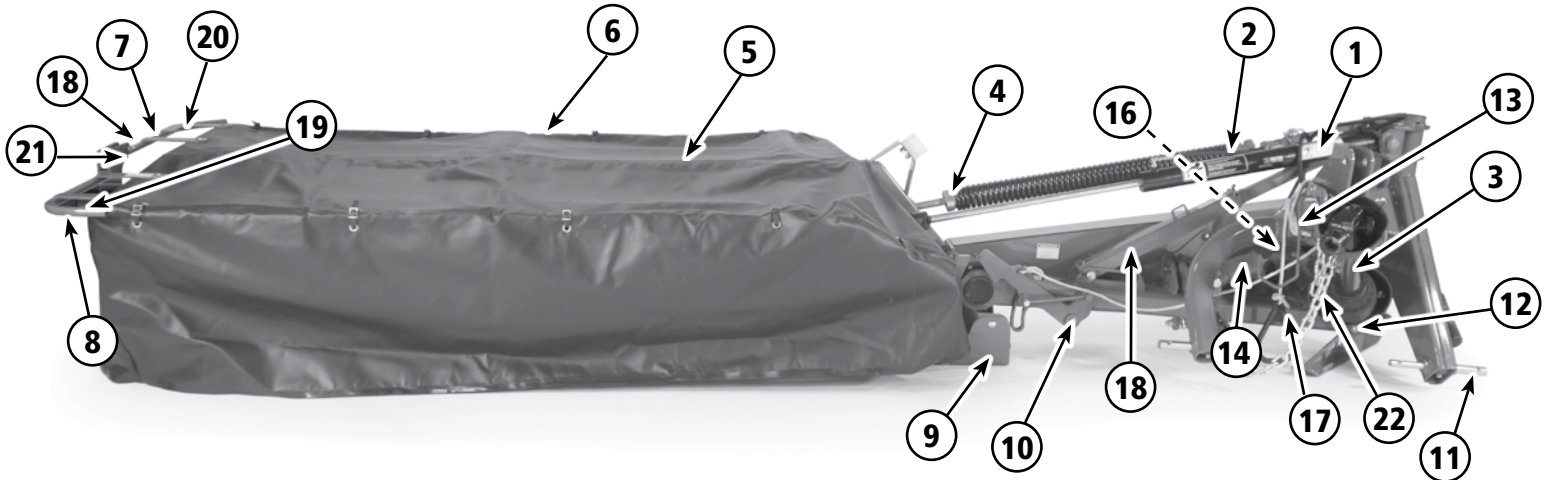


AT THE END OF YOUR CUTTING SEASON

1. Drain and change the oil in the gearbox (fill plug) and cutter bar (breather cap on side of gear box).
2. Check (and replace where necessary) blades, bolts, and nuts on the mower.
3. Clean mower and touch up any rust spots that may have appeared.
4. Replace any safety decals if damaged.
5. Store with stand in proper lateral position.
6. Store disc mower in a clean dry location.

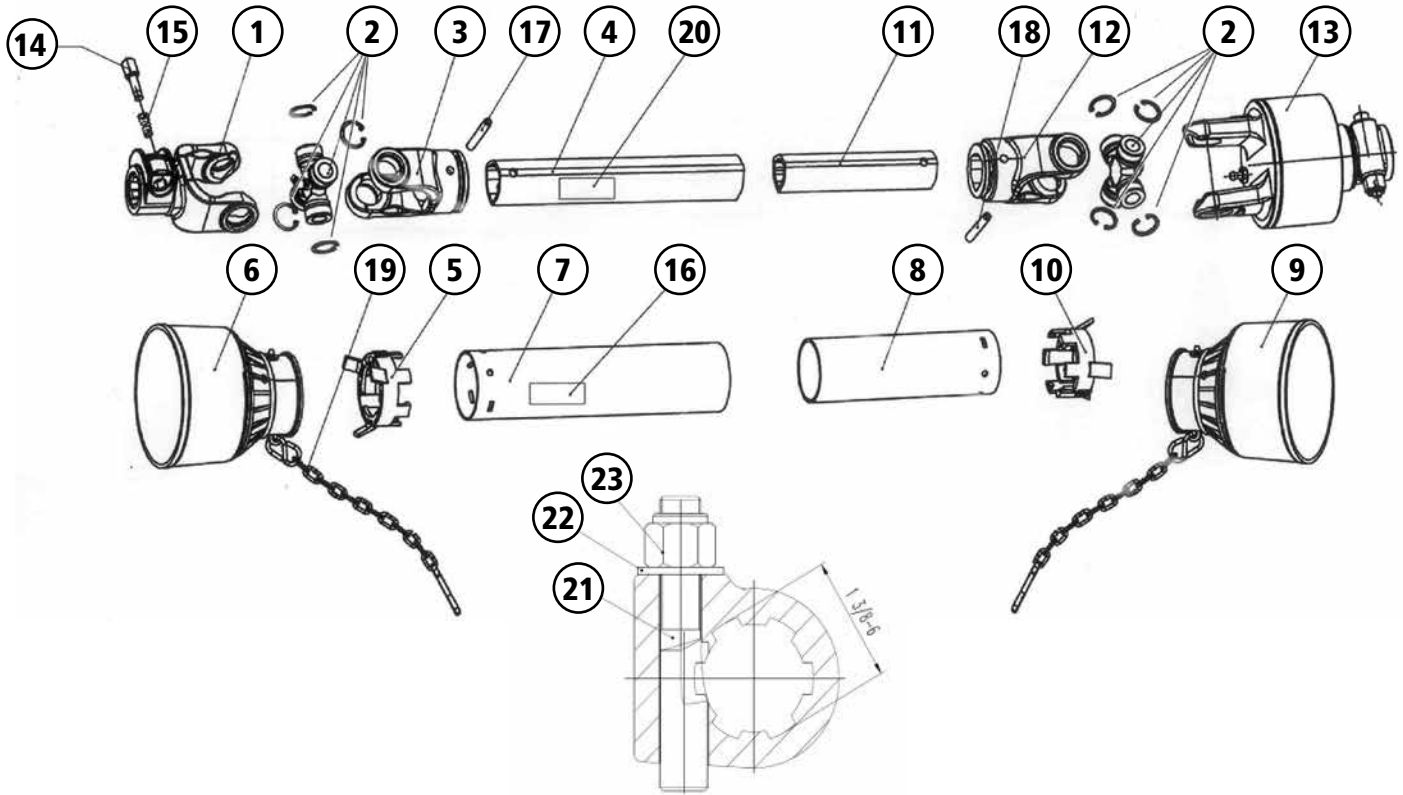
 **Always use a tractor to position equipment for storage. Never attempt to move equipment by hand.**
CAUTION

Parts



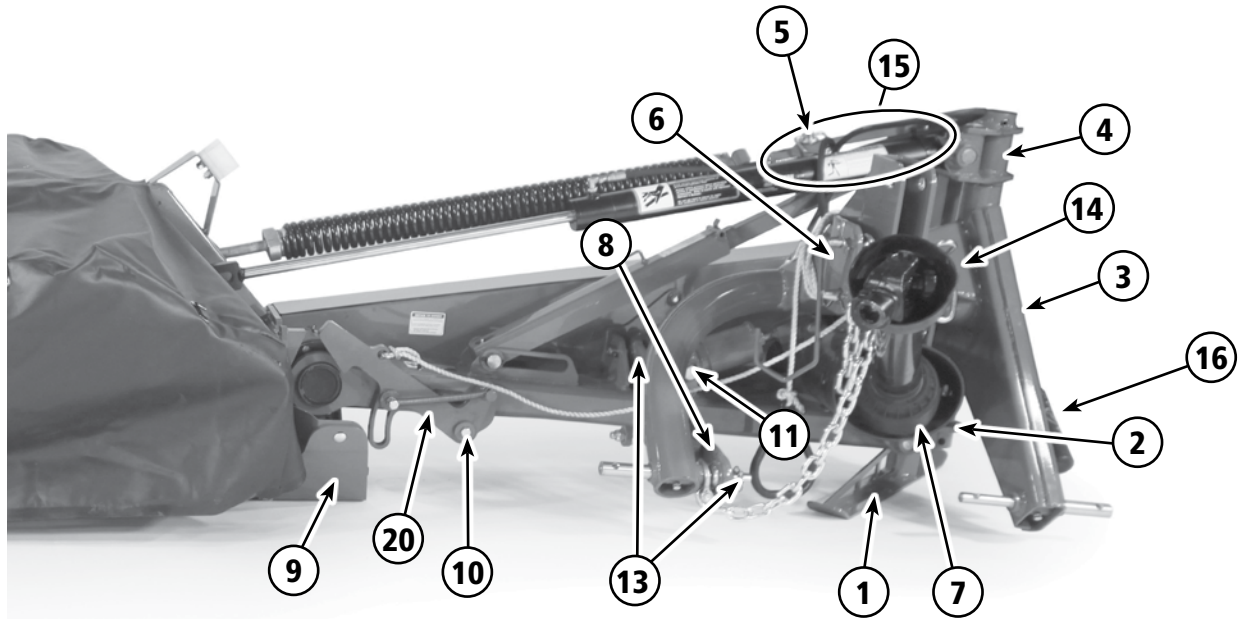
Ref. No.	Description	Part #
1	Hydraulic Cylinder (w/ Hydraulic Jack Shirt & Rod Hydraulic Cylinder)	5TIDM411101
2	Hose Kit	5TIDM411102
3	Disc Mower PTO	5TIDM411103
4	Disc Mower Suspension Spring Lower Adjustment Eyelet Assembly w/ Spring	5TIDM411104
5	5 Disc Mower Blade Bar Apron/Guard	5TIDM411105
5	6 Disc Mower Blade Bar Apron/Guard	5TIDM411106
5	7 Disc Mower Blade Bar Apron/Guard	5TIDM411107
6	Disc Cover Strap-10pk (For Apron)	5TIDM411108
7	Disc Mower Rear Blade Bar Guard End Frame Assembly (Not Shown)	5TIDM411109
8	Disc Mower Front Blade Bar Guard End Frame Assembly (Not Shown)	5TIDM411110
9	Disc Mower Blade Bar Skid Shoe Assembly	5TIDM411111
10	Disc Mower Bar Limit Assembly	5TIDM411112
11	Disc Mower Lift Pin w/ Hardware	5TIDM411113
12	Disc Mower Hitch Pivot/Stand Assembly Hardware	5TIDM411114
13	Disc Mower PTO Hanger w/ Hardware	5TIDM411115
14	Disc Mower Female Spring Retainer Assembly	5TIDM411116
15	Disc Mower Male Spring Retainer Assembly	5TIDM411117
16	Disc Mower Female Spring Retainer Adjustment Assembly (Not Shown)	5TIDM411118
17	Disc Mower Main Frame Assembly	5TIDM411119
18	Disc Mower Blade Bar Lock Assembly Hardware	5TIDM411120
19	Disc Mower Front Blade Bar Guard End Frame Assembly Hardware (3pk)	5TIDM411121
20	Disc Mower Rear Blade Bar Guard End Frame Assembly Hardware (2pk)	5TIDM411122
21	Disc Mower Front Blade Bar Guard Frame Lock Assembly Hardware	5TIDM411123
22	Stop Chain w/Hardware	5TIDM411124
23	Category II Top Link Pin (7' model only) (not shown)	5TIDC611108

Parts



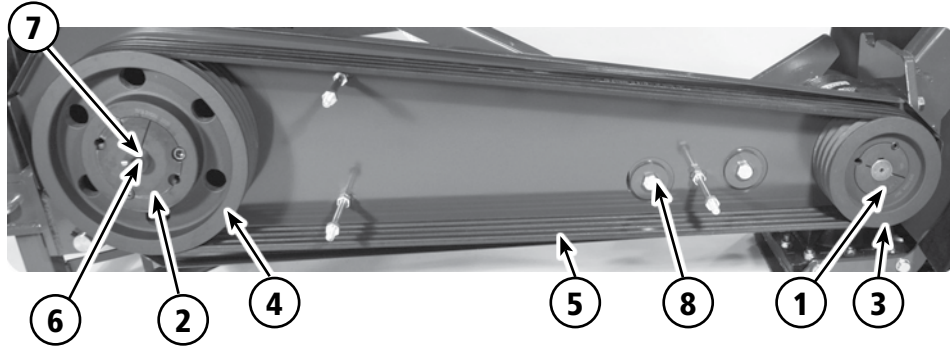
Ref. No.	Description	Part #
1	Disc Mower Tractor End Yoke	5TIDM411186
2	Disc Mower Cross Bearings (snap rings included) (2pk)	5TIDM411187
3	Disc Mower Outer PTO Tube Yoke	5TIDM411188
4	Disc Mower Outer PTO Tube	5TIDM411189
5	Disc Mower Outer Guard Locking Collar	5TIDM411190
6	Disc Mower Tractor End Shield	5TIDM411191
7	Disc Mower Outer PTO Tube Guard	5TIDM411192
8	Disc Mower Inner PTO Tube Guard	5TIDM411193
9	Disc Mower Implement End Shield	5TIDM411194
10	Disc Mower Inner Guard Locking Collar	5TIDM411195
11	Disc Mower Inner PTO Tube	5TIDM411196
12	Disc Mower Inner PTO Tube Yoke	5TIDM411197
13	Disc Mower Overrunning Clutch Assembly	5TIDM411198
14	Disc Mower Locking Pin	5TIDM411199
15	Disc Mower Taper Spring	5TIDM411200
16	Disc Mower Guard Missing Sticker	5TIDM411201
17	Disc Mower Tractor Side Roll Pin	5TIDM411202
18	Disc Mower Implement Side Roll Pin	5TIDM411203
19	Disc Mower Safety Chain	5TIDM411204
20	Disc Mower Rotating Driveline Sticker	5TIDM411205
21	Disc Mower Locking Bolt	5TIDM411305
22	Disc Mower 12mm Flat Washer	5TIDM411306
23	Disc Mower 12mm Nylon Insert Lock Nut	5TIDM411307

Parts

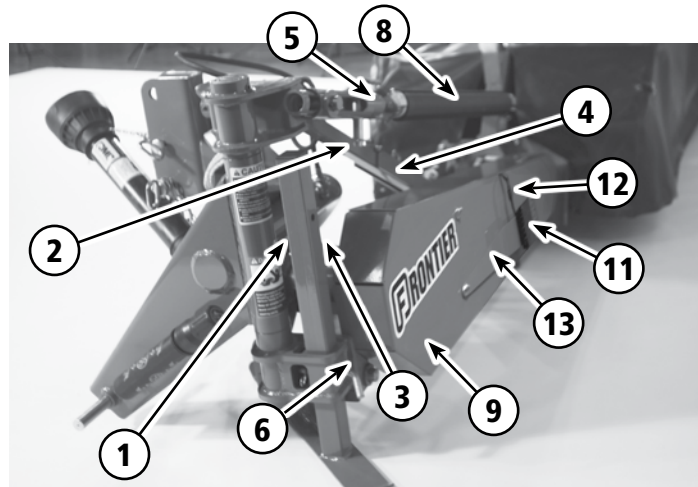


Ref. No.	Description	Part #
1	Disc Mower Stand Assembly	5TIDM411125
2	Disc Mower Hitch Pivot/Stand Assembly	5TIDM411126
3	Disc Mower Cat I & II Hitch Frame Assembly	5TIDM411127
3	Disc Mower Cat II Hitch Frame Assembly	5TIDM411128
4	Disc Mower Upper Suspension Spring Cylinder Mount	5TIDM411129
5	Suspension Spring Adjustment Pin (only for 6 & 7 disc units)	5TIDM411130
6	Disc Mower Nylon Rope-12'	5TIDM411131
7	Disc Mower PTO Shield w/ Hardware	5TIDM411132
8	Disc Mower Break Away Assembly	5TIDM411133
9	Disc Mower Blade Bar Skid Shoe Assembly Hardware (4pk)	5TIDM411134
10	Disc Mower Bar Limit Assembly Hardware	5TIDM411135
11	Disc Mower Male Spring Retainer Assembly Hardware	5TIDM411136
12	Disc Mower Female Spring Retainer Adjustment Assembly Hardware (Not Shown)	5TIDM411137
13	Disc Mower Break Away Assembly Hardware	5TIDM411138
14	Disc Mower Suspension Spring Adjustment Assembly	5TIDM411139
15	Disc Mower 5 Disc Upper Suspension Spring Cylinder Mount Hardware	5TIDM411272
15	Frontier Disc Mower 6 & 7 Disc Upper Suspension Spring Cylinder Mount Hardware	5TIDM411140
16	Disc Mower Manual Holder w/Hardware	5TIDM411141
17	Disc Mower Top Link Pin w/ R-Pin- 1per (not shown)	5TIDM411268
18	Disc Mower Extra-Long Top Link Pin w/ R-Pin- 1per (not shown)	5TIDM411269
19	Black Trapeze Handle (not shown)	5TIDM411270
20	Disc Mower Bar Limit Assembly Spring	5TIDM411308

Parts

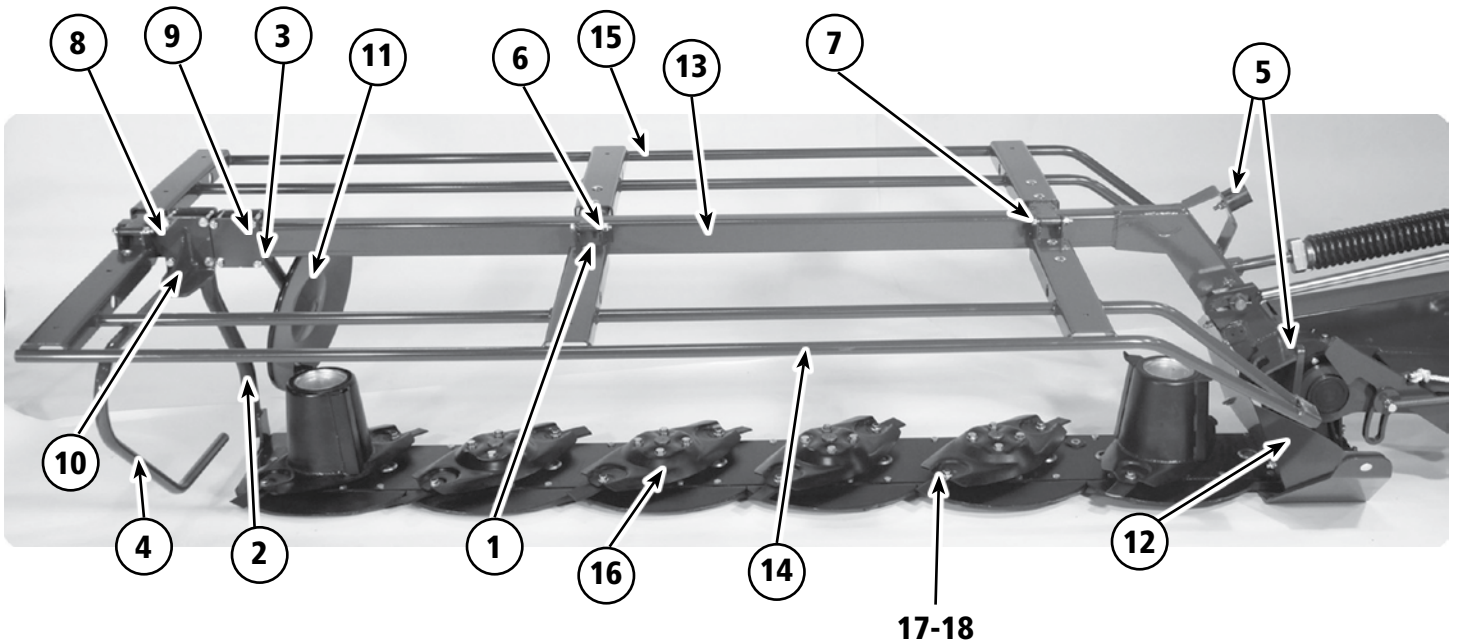


Ref. No.	Description	Part #
1	65mm X 45mm X 35mm (diam) 2517 Pulley Locking Collar	5TIDM411142
2	90mm X 90mm X 35mm (diam) 3535 Pulley Locking Collar	5TIDM411143
3	4 Belt SPB B 5V Op- 170mm Small Pulley w/ Locking Collar	5TIDM411144
4	4 Belt SPB B 5V Op- 315mm Large Pulley w/ Locking Collar	5TIDM411145
5	V Belt (4pk)	5TIDM411146
6	PTO Input Shaft/ Drive Pulley Mount	5TIDM411147
7	Large Pulley Key Stock	5TIDM411148
8	Disc Mower Frame Pivot Plate w/ hardware (Plate not shown, just hardware)	5TIDM411149



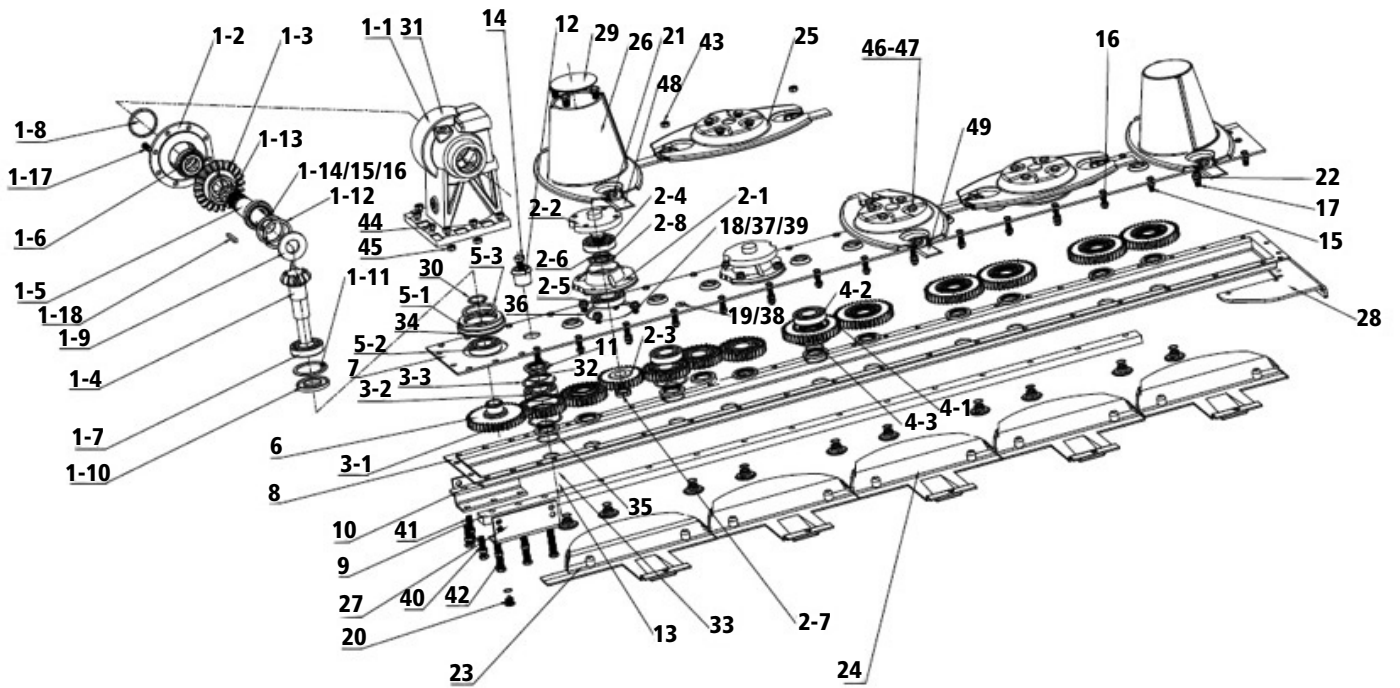
Ref. No.	Description	Part #
1	Disc Mower Hitch Frame Assembly Hardware	5TIDM411150
2	Disc Mower Hitch Limit Bar Assembly	5TIDM411151
3	Disc Mower Belt Tension Pivot Bracket Assembly	5TIDM411152
4	Disc Mower Blade Bar Lock Assembly	5TIDM411153
5	Frontier Disc Mower 5 Disc Suspension Spring Upper Adjustment Eyelet Assembly	5TIDM411271
5	Frontier Disc Mower 6 & 7 Disc Suspension Spring Upper Adjustment Eyelet Assembly	5TIDM411154
6	Disc Mower Stand Assembly Hardware	5TIDM411155
7	Disc Mower Hitch Limit Bar Assembly Hardware (Not Shown) (2pk)	5TIDM411156
8	Disc Mower Suspension Spring Lower Adjustment Eyelet Assembly Hardware	5TIDM411157
9	Belt Guard Kit	5TIDM411158
10	Disc Mower Main Frame Assembly Hardware (Not Shown)	5TIDM411159
11	Frontier Disc Mower Light w/ Hardware - 1per	5TIDM411265
12	Frontier Disc Mower Cable (10') - 1per	5TIDM411266
13	Frontier Disc Mower Light Bracket - 1per	5TIDM411267

Parts



Ref. No.	Description	Part #
1	Disc Mower Blade Bar Pivot Bracket Assembly	5TIDM411160
2	Disc Mower Blade Bar Cover Support Assembly	5TIDM411161
3	Frontier Disc Mower Swath Wheel Mount Assembly (part of optional ref #19)	5TIDM411162
4	Disc Mower Cutter Bar End Guard	5TIDM411163
5	Disc Mower Blade Bar Guard Main Frame Assembly Hardware	5TIDM411164
6	Disc Mower Blade Bar Pivot Bracket Assembly Hardware (3pk)	5TIDM411165
7	Disc Mower Front & Rear Blade Bar Guard Frame Assembly Hardware (6pk)	5TIDM411166
8	Disc Mower Blade Bar Cover Support Assembly Hardware (6pk)	5TIDM411167
9	Frontier Disc Mower Swath Wheel Mount Assembly Hardware (4pk) (part of optional ref #19)	5TIDM411168
10	Disc Mower Cutter Bar End Guard Hardware (4pk)	5TIDM411169
11	Frontier Disc Mower Swath Wheel (part of optional ref #19)	5TIDM411170
12	Inner Swath Shield w/ Hardware	5TIDM411171
13	5 Disc Blade Bar Guard Main Frame Assembly	5TIDM411172
13	6 Disc Blade Bar Guard Main Frame Assembly	5TIDM411173
13	7 Disc Blade Bar Guard Main Frame Assembly	5TIDM411174
14	5 Disc Front Blade Bar Guard Frame Assembly	5TIDM411175
14	6 Disc Front Blade Bar Guard Frame Assembly	5TIDM411176
14	7 Disc Front Blade Bar Guard Frame Assembly	5TIDM411177
15	5 Disc Rear Stationary Blade Bar Guard Frame Assembly	5TIDM411178
15	6 Disc Rear Stationary Blade Bar Guard Frame Assembly	5TIDM411179
15	7 Disc Rear Stationary Blade Bar Guard Frame Assembly	5TIDM411180
16	5 Disc Mower Blade Bar Assembly	5TIDM411181
16	6 Disc Mower Blade Bar Assembly	5TIDM411182
16	7 Disc Mower Blade Bar Assembly	5TIDM411183
17	Left Hand Blade w/Hardware (2pk)	5TIDM411184
18	Right Hand Blade w/Hardware (2pk)	5TIDM411185
19	Frontier Disc Mower Swath Wheel Attachment Assembly (ordered as an option) (includes ref #3, 9 & 11)	5TIDM411274

Parts



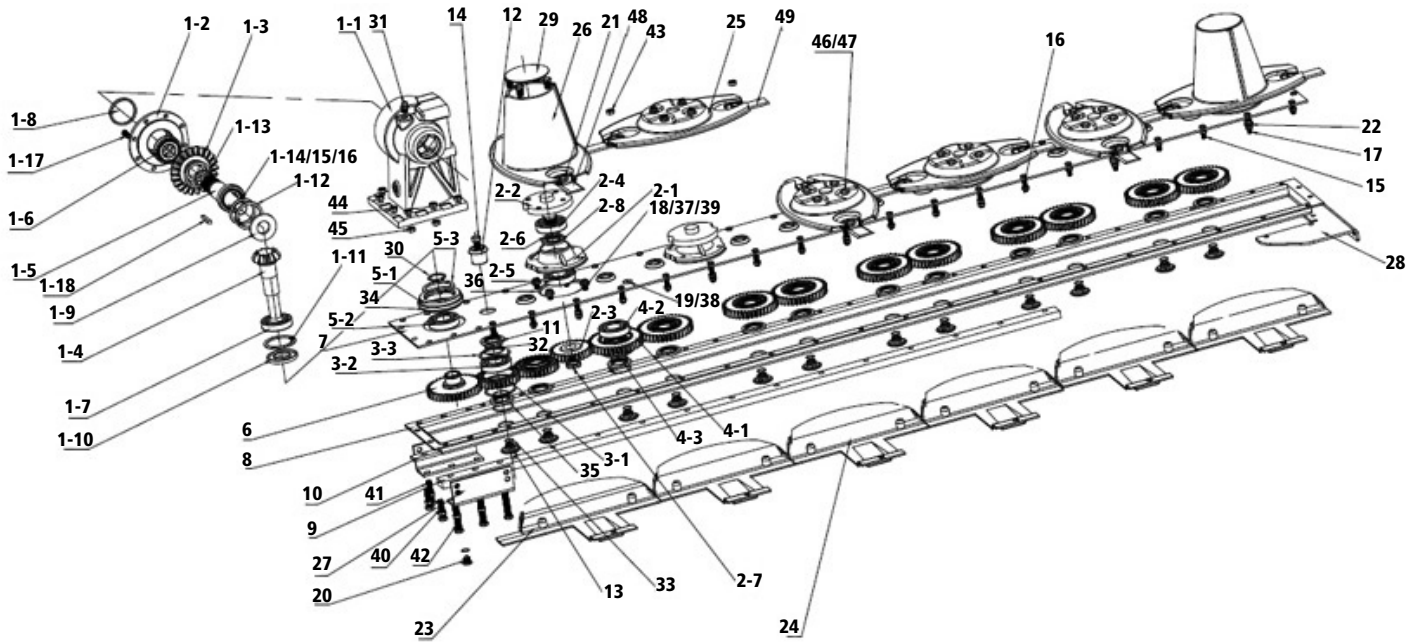
Parts

5 DISC CUTTER PARTS

Ref. #	Description	Part #	Qty.
1-1	Gearbox Housing	5TIDM411216	1
1-2	Bearing Housing	5TIDM411211	1
1-3	Bevel Gear	5TIDM411213	1
1-4	Gearbox Output Shaft	5TIDM411235	1
1-5	Cross Shaft	5TIDM411215	1
1-6	Tapered Roller Bearing (2pk)	5TIDM411212	2
1-7 / 5-2	Gearbox Output Shaft Bearing (2pk)	5TIDM411236	1 / 1
1-8	Solid Seal 72*10	5TIDM411275	1
1-9	Input Seal 35*72*8	5TIDM411227	1
1-10	Inner Seal 40*80*7	5TIDM411276	1
1-11 / 5-3	Retainer Ring 80 x 4 (2pk)	5TIDM411237	1 / 1
1-12	Retainer Ring 72*3	5TIDM411277	1
1-13	Retainer Ring 40*2.5	5TIDM411278	1
1-14	Washer 71.5 X 62 X 15 (2pk)	5TIDM411279	2
1-15	Washer 71.5 X 62 X .01 (2pk)	5TIDM411280	2
1-16	Washer 71.5 X 62 X .15 (2pk)	5TIDM411281	2
1-17	M10 X 25 Hex Bolt (8pk)	5TIDM411282	8
1-18	Cutter Bar Key	5TIDM411214	1
2-1	Spindle Housing	5TIDM411253	5
2-2	Disc Mount	5TIDM411219	5
2-3	Spindle Gear	5TIDM411226	5
2-4	Deep Groove Ball Bearing (2pk)	5TIDM411225	5
2-5	Spindle Bearing	5TIDM411254	5
2-6	Washer 41*30.5*1.85	5TIDM411283	5
2-7	GUK Lock Nut M25*1.5	5TIDM411252	5
2-8	Oil Seal 35*62*5	5TIDM411284	5
3-1	Drive Gear C	5TIDM411245	5
3-2 / 4-2	Drive Gear Bearing	5TIDM411246	5 / 6
3-3 / 4-3	Retainer Ring VHM80	5TIDM411285	10 / 12
4-1	Drive Gear D	5TIDM411286	6
5-1	Bearing Seating	5TIDM411238	1
6	Gearbox Output Shaft Gear	5TIDM411239	1
7	5 Disc box cover	5TIDM411247	1
8	5 Disc box	5TIDM411241	1
9	5 Disc Front Support	5TIDM411240	1
10	5 Disc Rear Support	5TIDM411243	1
11	Bushing	5TIDM411249	22

Ref. #	Description	Part #	Qty.
12	Upper Location Bushing	5TIDM411220	11
13	Lower Location Bushing	5TIDM411243	11
14	Bolt M14*30	5TIDM411287	11
15	Bolt M10*30	5TIDM411248	18
16	Bolt M10*40	5TIDM411288	17
17	Bolt M10*50	5TIDM411289	7
18	Disc Mount Bolt	5TIDM411290	28
19	Pipe Plug M16*1.5	5TIDM411223	1
20	Drain Plug	5TIDM411291	1
21	Knife Bolt (2pk)	5TIDM411224	10
22	Washer	5TIDM411292	4
23	First Disc Skid Shoe	5TIDM411244	1
24	Skid Shoe	5TIDM411256	4
25	Knife Mounting Disc	5TIDM411251	3
26	Drum Assembly	5TIDM411218	2
27	Mounting Bracket (2pk)	5TIDM411230	2
28	Mounting Plate	5TIDM411255	1
29	Drum Cap	5TIDM411293	2
30	Retainer Ring 40*2.5	5TIDM411294	1
31	Vent Plug 3/8-18NPT	5TIDM411217	2
32	O-Ring 40 X 2 (2pk)	5TIDM411295	22
33	O-Ring 19 X 1.5 (2pk)	5TIDM411296	11
34	O-ring 118*5.3	5TIDM411297	1
35	O-Ring 50 X 2.5 (2pk)	5TIDM411298	22
36	O-ring 119.5*2	5TIDM411299	5
37	Rubber Washer 23 X 15 X 2 (2pk)	5TIDM411300	20
38	Washer Seal M16	5TIDM411301	1
39	M10 Nut (4pk)	5TIDM411273	72
40	M12 X 50 Bolt (2pk)	5TIDM411233	2
41	M12 X 60 Bolt (3pk)	5TIDM411229	3
42	Hex Head Bolt M12*70	5TIDM411302	3
43	M12 Knife Lock Nut (4pk)	5TIDM411228	10
44	M12 Locknut (4pk)	5TIDM411232	8
45	M12 Jam Nut (6pk)	5TIDM411234	6
46	M12 X 20 Hex Bolt (2pk)	5TIDM411303	20
47	M12 Washer (2pk)	5TIDM411304	20
48 / 49	RH Knife/LH Knife (2pk)	5TIDM411221/ 5TIDM411222	6 / 4

Parts



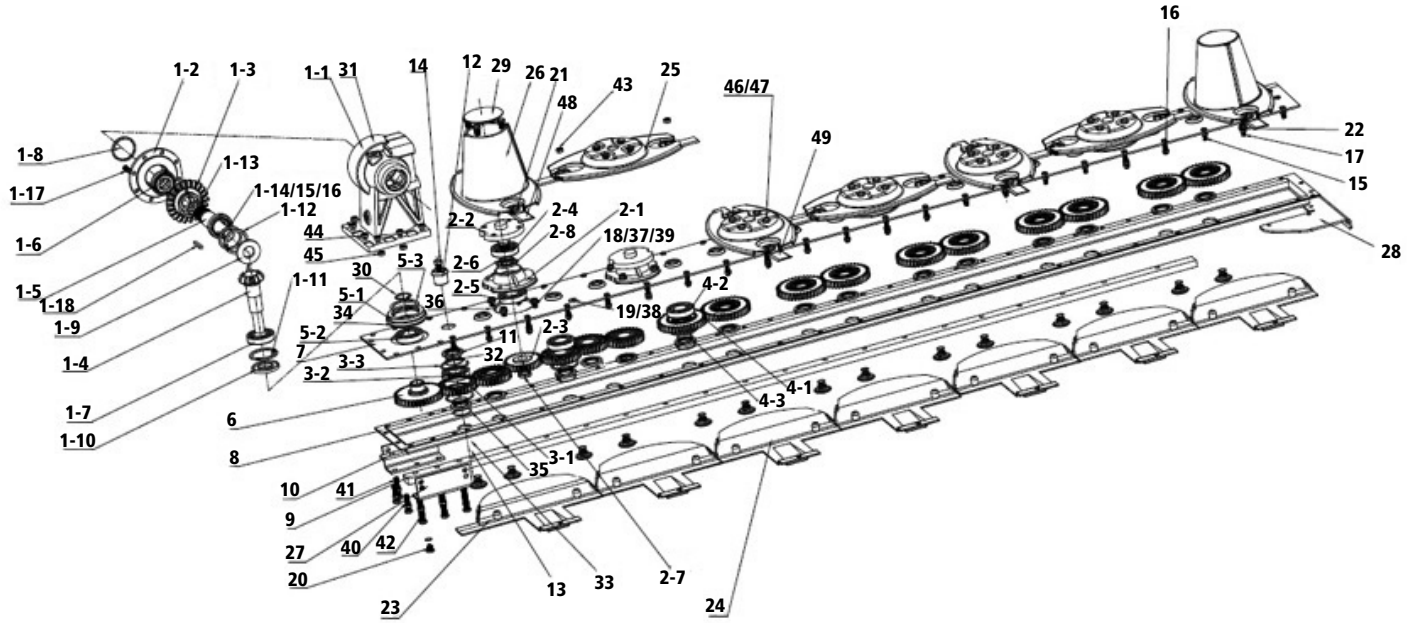
Parts

6 DISC CUTTER PARTS

Ref. #	Description	Part #	Qty.
1-1	Gearbox Housing	5TIDM411216	1
1-2	Bearing Housing	5TIDM411211	1
1-3	Bevel Gear	5TIDM411213	1
1-4	Gearbox Output Shaft	5TIDM411235	1
1-5	Cross Shaft	5TIDM411215	1
1-6	Tapered Roller Bearing (2pk)	5TIDM411212	2
1-7 / 5-2	Gearbox Output Shaft Bearing (2pk)	5TIDM411236	1 / 1
1-8	Solid Seal 72*10	5TIDM411275	1
1-9	Input Seal 35*72*8	5TIDM411227	1
1-10	Inner Seal 40*80*7	5TIDM411276	1
1-11 / 5-3	Retainer Ring 80 x 4 (2pk)	5TIDM411237	1 / 1
1-12	Retainer Ring 72*3	5TIDM411277	1
1-13	Retainer Ring 40*2.5	5TIDM411278	1
1-14	Washer 71.5 X 62 X 15 (2pk)	5TIDM411279	2
1-15	Washer 71.5 X 62 X .01 (2pk)	5TIDM411280	2
1-16	Washer 71.5 X 62 X .15 (2pk)	5TIDM411281	2
1-17	M10 X 25 Hex Bolt (8pk)	5TIDM411282	8
1-18	Cutter Bar Key	5TIDM411214	1
2-1	Spindle Housing	5TIDM411253	6
2-2	Disc Mount	5TIDM411219	6
2-3	Spindle Gear	5TIDM411226	6
2-4	Deep Groove Ball Bearing (2pk)	5TIDM411225	6
2-5	Spindle Bearing	5TIDM411254	6
2-6	Washer 41*30.5*1.85	5TIDM411283	6
2-7	GUK Lock Nut M25*1.5	5TIDM411252	6
2-8	Oil Seal 35*62*5	5TIDM411284	6
3-1	Drive Gear C	5TIDM411245	2
3-2 / 4-2	Drive Gear Bearing	5TIDM411246	2 / 10
3-3 / 4-3	Retainer Ring VHM80	5TIDM411285	4 / 20
4-1	Drive Gear D	5TIDM411286	10
5-1	Bearing Seating	5TIDM411238	1
6	Gearbox Output Shaft Gear	5TIDM411239	1
7	6 Disc box cover	5TIDM411260	1
8	6 Disc box	5TIDM411258	1
9	6 Disc Front Support	5TIDM411257	1
10	6 Disc Rear Support	5TIDM411259	1
11	Bushing	5TIDM411249	24

Ref. #	Description	Part #	Qty.
12	Upper Location Bushing	5TIDM411220	12
13	Lower Location Bushing	5TIDM411243	12
14	Bolt M14*30	5TIDM411287	12
15	Bolt M10*30	5TIDM411248	19
16	Bolt M10*40	5TIDM411288	21
17	Bolt M10*50	5TIDM411289	6
18	Disc Mount Bolt	5TIDM411290	24
19	Pipe Plug M16*1.5	5TIDM411223	1
20	Drain Plug	5TIDM411291	1
21	Knife Bolt (2pk)	5TIDM411224	12
22	Washer	5TIDM411292	4
23	First Disc Skid Shoe	5TIDM411244	1
24	Skid Shoe	5TIDM411256	5
25	Knife Mounting Disc	5TIDM411251	4
26	Drum Assembly	5TIDM411218	2
27	Mounting Bracket (2pk)	5TIDM411230	2
28	Mounting Plate	5TIDM411255	1
29	Drum Cap	5TIDM411293	2
30	Retainer Ring 40*2.5	5TIDM411294	1
31	Vent Plug 3/8-18NPT	5TIDM411217	2
32	O-Ring 40 X 2 (2pk)	5TIDM411295	24
33	O-Ring 19 X 1.5 (2pk)	5TIDM411296	12
34	O-ring 118*5.3	5TIDM411297	1
35	O-Ring 50 X 2.5 (2pk)	5TIDM411298	24
36	O-ring 119.5*2	5TIDM411299	6
37	Rubber Washer 23 X 15 X 2 (2pk)	5TIDM411300	24
38	Washer Seal M16	5TIDM411301	1
39	M10 Nut (4pk)	5TIDM411273	84
40	M12 X 50 Bolt (2pk)	5TIDM411233	2
41	M12 X 60 Bolt (3pk)	5TIDM411229	3
42	Hex Head Bolt M12*70	5TIDM411302	3
43	M12 Knife Lock Nut (4pk)	5TIDM411228	12
44	M12 Locknut (4pk)	5TIDM411232	8
45	M12 Jam Nut (6pk)	5TIDM411234	6
46	M12 X 20 Hex Bolt (2pk)	5TIDM411303	24
47	M12 Washer (2pk)	5TIDM411304	24
48 / 49	RH Knife/LH Knife (2pk)	5TIDM411221/ 5TIDM411222	6 / 6

Parts



Parts

7 DISC CUTTER PARTS

Ref. #	Description	Part #	Qty.
1-1	Gearbox Housing	5TIDM411216	1
1-2	Bearing Housing	5TIDM411211	1
1-3	Bevel Gear	5TIDM411213	1
1-4	Gearbox Output Shaft	5TIDM411235	1
1-5	Cross Shaft	5TIDM411215	1
1-6	Tapered Roller Bearing (2pk)	5TIDM411212	2
1-7 / 5-2	Gearbox Output Shaft Bearing (2pk)	5TIDM411236	1 / 1
1-8	Solid Seal 72*10	5TIDM411275	1
1-9	Input Seal 35*72*8	5TIDM411227	1
1-10	Inner Seal 40*80*7	5TIDM411276	1
1-11 / 5-3	Retainer Ring 80 x 4 (2pk)	5TIDM411237	1 / 1
1-12	Retainer Ring 72*3	5TIDM411277	1
1-13	Retainer Ring 40*2.5	5TIDM411278	1
1-14	Washer 71.5 X 62 X 15 (2pk)	5TIDM411279	2
1-15	Washer 71.5 X 62 X .01 (2pk)	5TIDM411280	2
1-16	Washer 71.5 X 62 X .15 (2pk)	5TIDM411281	2
1-17	M10 X 25 Hex Bolt (8pk)	5TIDM411282	8
1-18	Cutter Bar Key	5TIDM411214	1
2-1	Spindle Housing	5TIDM411253	7
2-2	Disc Mount	5TIDM411219	7
2-3	Spindle Gear	5TIDM411226	7
2-4	Deep Groove Ball Bearing (2pk)	5TIDM411225	7
2-5	Spindle Bearing	5TIDM411254	7
2-6	Washer 41*30.5*1.85	5TIDM411283	7
2-7	GUK Lock Nut M25*1.5	5TIDM411252	7
2-8	Oil Seal 35*62*5	5TIDM411284	7
3-1	Drive Gear C	5TIDM411245	5
3-2 / 4-2	Drive Gear Bearing	5TIDM411246	5 / 10
3-3 / 4-3	Retainer Ring VHM80	5TIDM411285	10 / 20
4-1	Drive Gear D	5TIDM411286	10
5-1	Bearing Seating	5TIDM411238	1
6	Gearbox Output Shaft Gear	5TIDM411239	1
7	7 Disc box cover	5TIDM411264	1
8	7 Disc box	5TIDM411262	1
9	7 Disc Front Support	5TIDM411261	1
10	7 Disc Rear Support	5TIDM411263	1
11	Bushing	5TIDM411249	30

Ref. #	Description	Part #	Qty.
12	Upper Location Bushing	5TIDM411220	15
13	Lower Location Bushing	5TIDM411243	15
14	Bolt M14*30	5TIDM411287	15
15	Bolt M10*30	5TIDM411248	24
16	Bolt M10*40	5TIDM411288	28
17	Bolt M10*50	5TIDM411289	7
18	Disc Mount Bolt	5TIDM411290	28
19	Pipe Plug M16*1.5	5TIDM411223	1
20	Drain Plug	5TIDM411291	1
21	Knife Bolt (2pk)	5TIDM411224	14
22	Washer	5TIDM411292	4
23	First Disc Skid Shoe	5TIDM411244	1
24	Skid Shoe	5TIDM411256	6
25	Knife Mounting Disc	5TIDM411251	5
26	Drum Assembly	5TIDM411218	2
27	Mounting Bracket (2pk)	5TIDM411230	2
28	Mounting Plate	5TIDM411255	1
29	Drum Cap	5TIDM411293	2
30	Retainer Ring 40*2.5	5TIDM411294	1
31	Vent Plug 3/8-18NPT	5TIDM411217	2
32	O-Ring 40 X 2 (2pk)	5TIDM411295	30
33	O-Ring 19 X 1.5 (2pk)	5TIDM411296	15
34	O-ring 118*5.3	5TIDM411297	1
35	O-Ring 50 X 2.5 (2pk)	5TIDM411298	30
36	O-ring 119.5*2	5TIDM411299	7
37	Rubber Washer 23 X 15 X 2 (2pk)	5TIDM411300	28
38	Washer Seal M16	5TIDM411301	1
39	M10 Nut (4pk)	5TIDM411273	98
40	M12 X 50 Bolt (2pk)	5TIDM411233	2
41	M12 X 60 Bolt (3pk)	5TIDM411229	3
42	Hex Head Bolt M12*70	5TIDM411302	3
43	M12 Knife Lock Nut (4pk)	5TIDM411228	14
44	M12 Locknut (4pk)	5TIDM411232	8
45	M12 Jam Nut (6pk)	5TIDM411234	6
46	M12 X 20 Hex Bolt (2pk)	5TIDM411303	28
47	M12 Washer (2pk)	5TIDM411304	28
48 / 49	RH Knife/LH Knife (2pk)	5TIDM411221/ 5TIDM411222	8 / 6

John Deere Keeps You On The Job

John Deere Is At Your Service

CUSTOMER SATISFACTION is important to John Deere.

Our dealers strive to provide you with prompt, efficient parts and service:

- Maintenance and service parts to support your equipment.
- Trained service technicians and the necessary diagnostic and repair tools to service your equipment.

CUSTOMER SATISFACTION PROBLEM RESOLUTION PROCESS

Your John Deere dealer is dedicated to supporting your equipment and resolving any problem you may experience.

1. When contacting your dealer, be prepared with the following information:

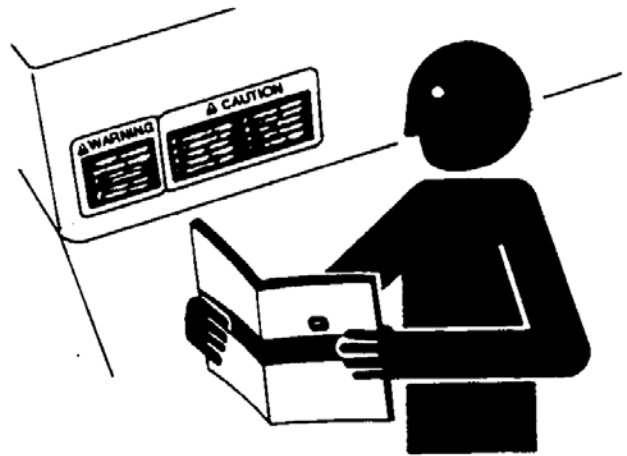
- Machine model and product identification number
- Date of purchase
- Nature of problem

2. Discuss problem with dealer service manager.

3. If unable to resolve, explain problem to dealership manager and request assistance.

4. If you have a persistent problem your dealership is unable to resolve, ask your dealer to contact John Deere for assistance.

5. If a problem is not resolved to your satisfaction, contact the Ag Customer Assistance Center at 1-866-99DEERE (866-993-3373) or e-mail us at agriculture@johndeere.com.



Troubleshooting

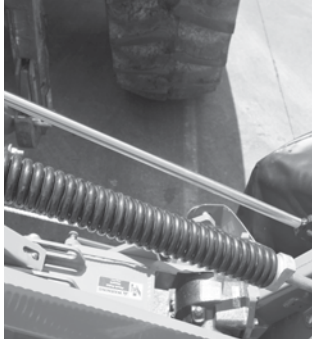
Troubleshooting

Problem	Possible Remedy
Belts slipping, making noise, or hitting belt guard.	Tighten belt tension, they will stretch and become loose over time. (Refer to page 34)
End of cutter bar making marks on the ground or dragging too hard.	Increase main spring tension. (Refer to page 28)
Missing/ not cutting hay in low spots.	Adjust hitch height/lift arms so float indicator is closer to the bottom of the slot. (Refer to page 27)
Cutter angled too far forwards or backwards.	Adjust length of top link.
Mower is bouncing off ground leaving uneven cuts.	Loosen main spring tension. (Refer to page 28)
Cutter bar trip-away occurring too easily/ often without obstruction.	Tighten spring tension on trip-away assembly. (Refer to page 29)
Cutter bar trip-away not tripping when hitting obstruction.	Loosen spring tension on trip-away assembly. (Refer to page 29)
The row of cut foliage width behind the mower is too wide or narrow for users preference.	Loosen four bolts on swath wheel assembly and move left or right on the frame to change width of foliage row.
Problem-balling up or failure to cut thick hay.	Tighten belt tension, belts may be slipping (Refer to page 34). The speed of the tractor could also be the issue.

**PART NUMBER
5TIDM411206**

 FRONTIER™

SETUP AND FLOAT ADJUSTMENT (Refer to pages 22-29 of the OM for full details)



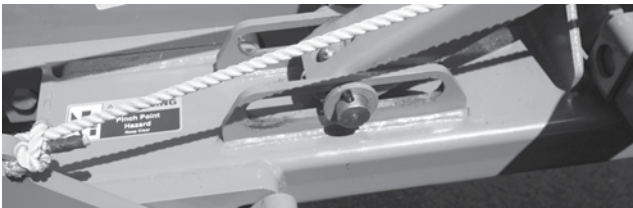
Once the mower is attached to the tractor make sure it is straight behind tractor and lock lift arm sway adjusters in position.

NOTE: The blade bar skid shoe should be in line with the outside of the tractor tire for best cutting results.

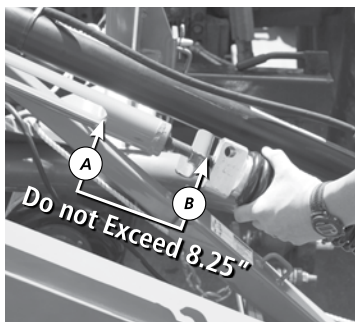
Adjust Top link length to acquire proper cut height and mower tilt. The cutter bar should be tilted slightly forward for best cut.



Adjust Lift arm Height to insure mower is in proper float condition. The float linkage shown below should be near center for mower to float properly.

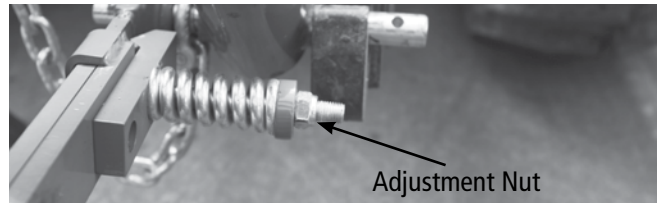


Adjust main spring tension for proper blade bar drag (applies to all models). For DM5060 and DM5070 mowers both a macro and micro adjustment can be adjusted. On DM5050, shown below, only a micro adjustment is present. By lengthening the assembly the end of the blade bar will weigh more and by shortening it will weigh less this is a user preference depending on cutting conditions. Never exceed 8.25" between points A (the cutout portion) and B (the face of the zinc-plated spring retainer). Refer to the Operation section of the manual for full macro adjustments on the 6 and 7 Disc Mowers (pages 27-29)



TRIP AWAY ASSEMBLY (Refer to page 29 of the OM for full details)

The trip assembly is designed to prevent damage to the mower if the cutter bar should come in contact with an obstruction. This assembly is adjustable and the ease of trip can be adjusted by tightening or loosening the adjustment nut shown below. A factory preset length of 1" exposed threaded rod is common however this may need to be changed per user preference and if unnecessary trips occur tighten tension.

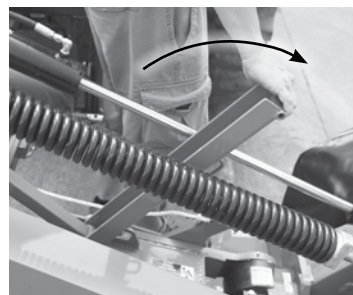


DETACHING AND PARKING POSITION (CAUTION! Refer to pages 26-27 of the OM for full details)

1.) Make sure mower is sitting on flat level ground with the cutter bar in the down position



2.) Engage parking lock on mower 3.) Deploy parking stand



4.) Detach tractor



5.) Attaching (refer to manual page 22-24)
Reverse steps 1 - 4

Caution! Disengage parking lock after attaching to tractor or damage will occur.