



ISO9001:2015 certified

Series 400 Power Ditcher Offset Cut



Owner's Manual

Our Tradition is Quality Driven and Field Proven

Manual # - MAN-PD-400-OC-003

Table of Contents

Warranty Policy	3
Manual.....	4
Identification View.....	5
Checklist.....	6
Safety	7
Operating.....	9
Lubrication and Maintenance	10
Belt Tension Setting.....	11
Troubleshooting.....	12
Torque Values.....	13
Storage.....	14
ADMA.....	16
Sheave Configuration.....	17
Registration Form.....	18

***PART DIAGRAMS**

Scan the QR Code or visit our website to view our parts book:

<https://www.remlingermfg.com/agricultural-products/downloads/>



Warranty Policy

Remlinger Mfg. will warrant all products against defects in material and workmanship manufactured and sold by it. Warranty will only be granted after examination by appropriate personnel. This warranty is expressly limited to the replacement of defective products. This warranty does not obligate Remlinger Manufacturing to cover cost of labor to replace these parts.

Remlinger Mfg. reserves the right to change specifications, add improvements or discontinue manufacture of any of its equipment without notice or obligation to purchasers of its equipment. This warranty gives you specific legal rights. You may also have other rights which vary according to state or province.

WARRANTY EXCLUSIONS: Labor, transportation, or any cost related to a service call is not provided by Remlinger Mfg. This Limited Warranty does not apply to damage resulting from misuse, neglect, normal wear, accident or improper installation or maintenance.

BASIC WARRANTY: All Remlinger manufactured products are warranted for one year from date of purchase.

WARRANTY CERTIFICATION: Warranty registration should be mailed, emailed or faxed within 30 days of purchase. Please see Registration Form on Page 17.

UNAPPROVED PARTS OR MODIFICATION: All obligations of Remlinger Mfg. under this Warranty are terminated if unapproved parts are used or if equipment is modified or altered in any way not approved by Remlinger Mfg.

Manual

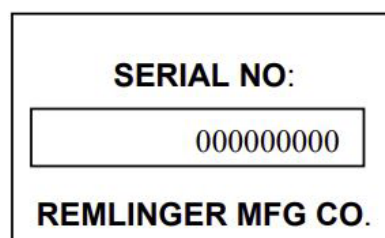
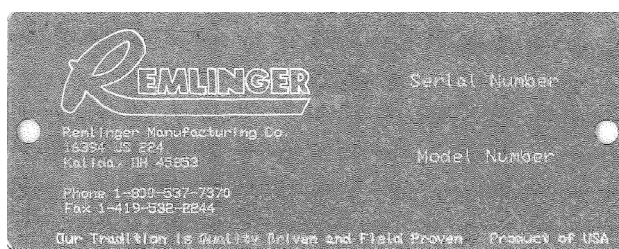
READ THIS MANUAL carefully to learn how to assembly, adjust, operate and service your Remlinger Power Ditcher properly. Failure to do so could result in personal injury or equipment damage.

THIS MANUAL SHOULD BE considered a permanent part of this product and should remain with it at all times for reference.

ALL REFERENCES to Right-Hand and LeftHand are determined by facing the implement or tool from the rear.

READ AND UNDERSTAND the Limited Warranty before operating the ditcher. The Limited Warranty is located on the inside front cover.

Serial Number for the Power Ditcher is located on the upper Right-Hand side of the drive Housing. The number on the metal tag is the ditcher **model number**. The number on the Remlinger decal is the **serial number**.



Please complete the Registration Form – located on the last page of this manual.

For Your Records

Dealer Purchased From

Name: _____

Address: _____

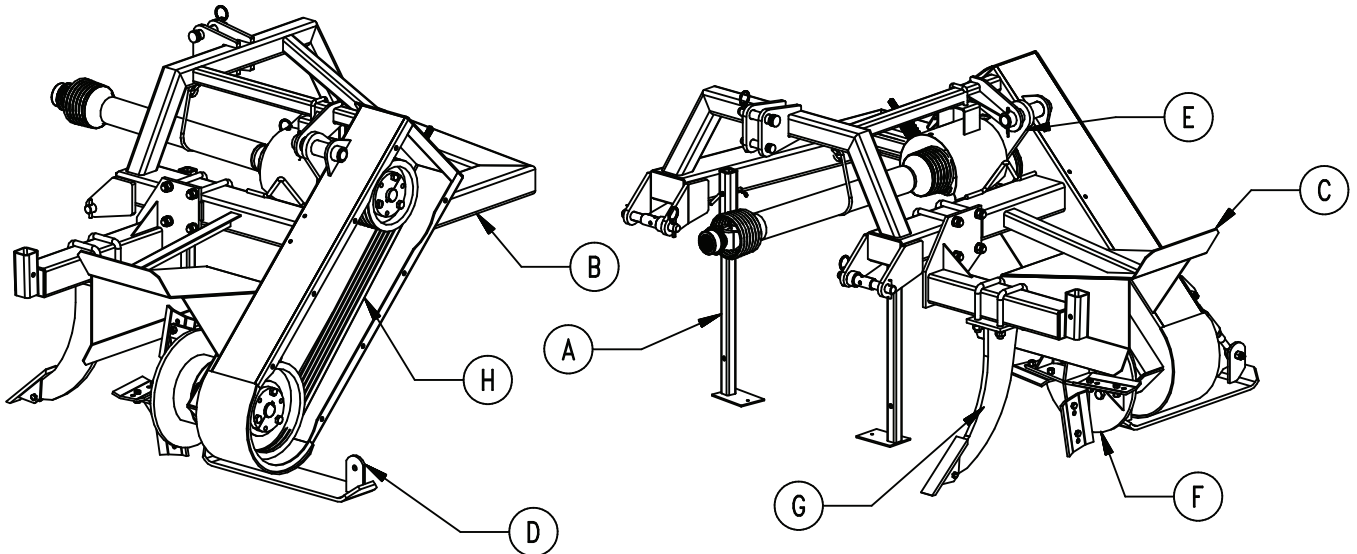
City: _____ State: _____ Zip: _____

Date Purchased: _____

Model No. _____ (located on the right-hand side of the drive housing)

Serial No. _____ (located on the right-hand side of the drive housing)

Identification View



A PARKING STAND
B FRAME
C DISCHARGE CHUTE
D DEPTH SKID

E BEARING SHAFT ASSEMBLY
F KNIFE ROTOR ASSEMBLY
G RIPPER SHANK ASSEMBLY (OPTIONAL)
H BELT & SHEAVE DRIVE

Checklist

Predelivery Checklist

After the ditcher has been completely assembled, inspect it to be sure it is good running order before delivering it to the customer. Check each item when found satisfactory or after making the necessary adjustments:

- ☐ Ditcher has been assembled properly.
- ☐ All grease fittings have been lubricated.
- ☐ Lubricate all lubrication points; be sure all fittings are taking grease and check all lubrication seals for leakage.
- ☐ Check drive belt tension and adjust, if necessary
- ☐ Check tightness of all external nuts and bolts. Pay particular attention to those securing the blades.
- ☐ Check that all moving parts are working freely.
- ☐ Connect PTO, check operation of PTO, sheave, belt drive and roter. Watch for any signs of faulty operation, vibration or unusual sounds. After a period of operation, shut off tractor engine. Check for loose bolts.
- ☐ Clean the ditcher and touch up any places where the paint is nicked or scratched. Be sure all decals are properly applied and undamaged

Date Set Up _____

Delivery Checklist

The following check list is a reminder of very important information which should be conveyed directly to the customer at the time the ditcher is delivered. Check off each item as it is fully explained:

- ☐ Advise the customer that the life expectancy of this or any other machine depends on regular lubrication as described in the operator's manual.
- ☐ Give the operator's manual to your customer and explain all operating adjustments and lubrication.
- ☐ Explain the importance of safe and proper operation of the machine. Point out decals warning the operator of the dangers of unsafe operating procedures and conditions.
- ☐ Advise the customer that he must check the torque of nuts and bolts after the first 4 hours of operation.
- ☐ Tell the customer to record the serial number of this ditcher in the space provided on page 4 of this manual.
- ☐ Complete Delivery and Warranty Registration forms, listing serial number of machine.
- ☐ Explain Warranty. Have dealer and customer sign form.

Safety



This symbol indicates an important Safety Alert Message in this Manual. Carefully read and understand the message that follows. The potential for series injury or death is possible.

UNDERSTAND SIGNAL WORDS

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

WARNING: 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.

CAUTION: 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.

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.

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.



Safety



OPERATE SAFELY

To avoid bodily injury, keep all power drive safety shields in place.

Operate ditcher with 540 or 1000 rpm tractor.

Should excessive vibration occur, disengage tractor PTO shaft immediately.

Be sure rotor has stopped completely before checking blades.

Always replace broken, worn or missing blades.

Never ride, or permit others to ride, on the drawbar of the tractor or on the ditcher.

STAY CLEAR OF ROTATING DRIVE LINES

Entanglement in rotating drive line can cause serious injury or death.

Keep tractor master shield and drive line shields in place at all times.

Make sure rotating shields turn freely.

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

LUBRICATE THE DITCHER SAFELY

Do not clean, lubricate, or adjust the ditcher while it is in motion.

Before servicing or adjusting the ditcher, or removing material from it, always:

1. Disengage the power.
2. Shut off the engine.
3. Wait until ditcher rotor has stopped rotating.

Operating

BREAK-IN

Before starting the ditcher, lubricate the machine. See Lubrication and Maintenance Section.



CAUTION: Never operate the ditcher until the power shaft and other safety shields are in place and secured, Tighten all nuts and check cotter pins to see they are properly installed.

FIELD OPERATION

IMPORTANT: The constant striking of rotor blades and sudden impacts may cause excessive shear pin breakage. Reduce ditch depth or tractor speed.

Under most conditions, the tractor can be operated at 5 to 11 km/h (3 to 7 mph) without causing undue wear on the ditcher. Avoid excessive speeds. Reasonable speeds result in higher productivity.

Various ditching conditions require different ground speeds. Best results will be obtained by running the tractor at the travel speed that will meet field conditions or the speed where the smoothest ditching action results.

IMPORTANT: When operating the ditcher always check the cutting depth so rotor will spread soil evenly and consistent.

IMPORTANT: Always operate the ditcher with the tractor at recommended speed to obtain 540 or 1000 rpm on the tractor PTO shaft.

Operating the tractor at less than recommended PTO rpm will reduce the blade rotor speed and result in improper ditching. Where difficult conditions make it necessary to slow down the ground speed of the tractor, shift to a lower gear, thus keeping the engine at its rated speed. Reduce tractor RPM and disengage PTO when raising tractor 3 point hitch. PTO angle should never exceed 20 degrees while engaged.

IMPORTANT: Do not engage PTO with engine running at high speed. Doing so may cause undue wear or possible drive line and/or belt damage.

MAINTAINING ROTOR BALANCE

The rotor on your power ditcher is dynamically balanced and must be maintained in balance throughout the life of the machine.



CAUTION: Should excessive vibration occur, disengage the tractor PTO shaft immediately! Shut off the tractor and determine the cause of problem. Correct the problem before operating again. See Service Section.

Lubrication and Maintenance

SYMBOLS



Lubricate with Multi-Purpose lubricant or an equivalent SAE multipurpose type grease at hourly intervals indicated by the symbols.

CAUTION: Do not clean, lubricate, or adjust your machine while it is in motion.

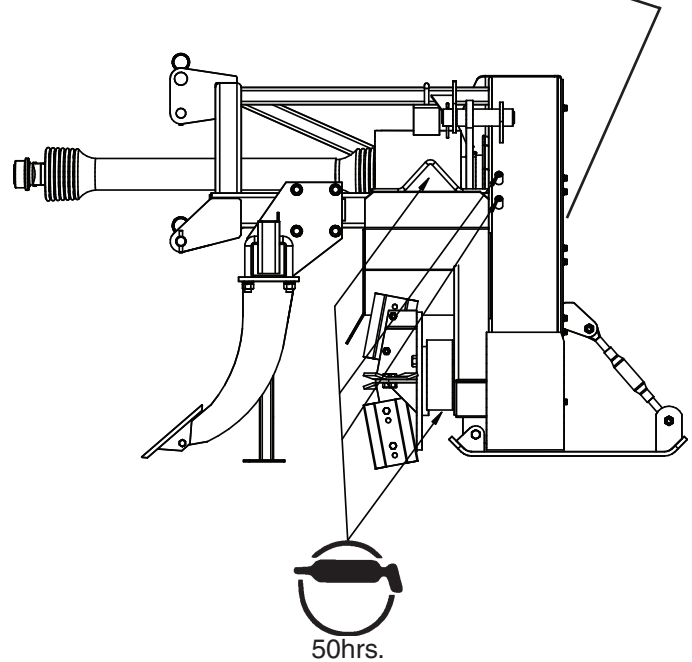


Clean grease fittings before using grease gun. Replace any lost or broken fittings immediately.

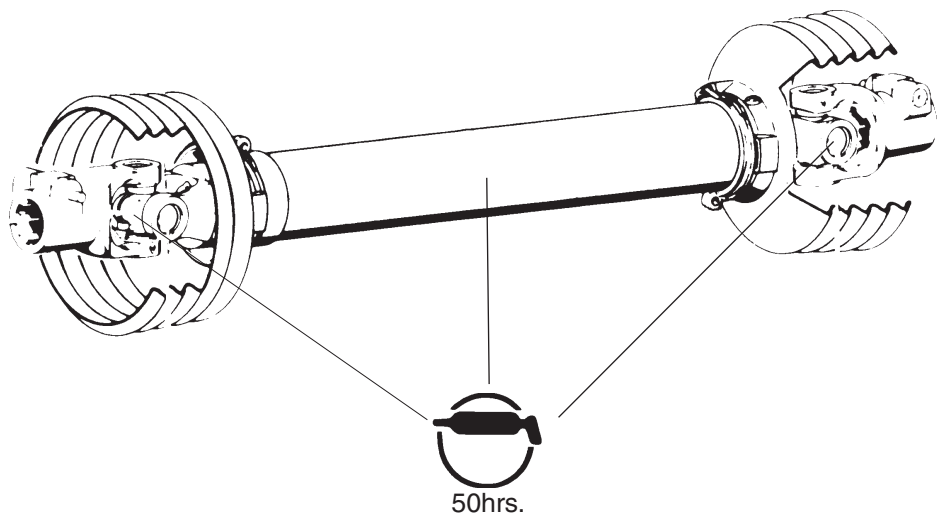
The application of grease in bearing area is very critical. Grease approximately four pumps every 50 hours. **DO NOT OVER GREASE**

Q-D "E" BUSHING TORQUE

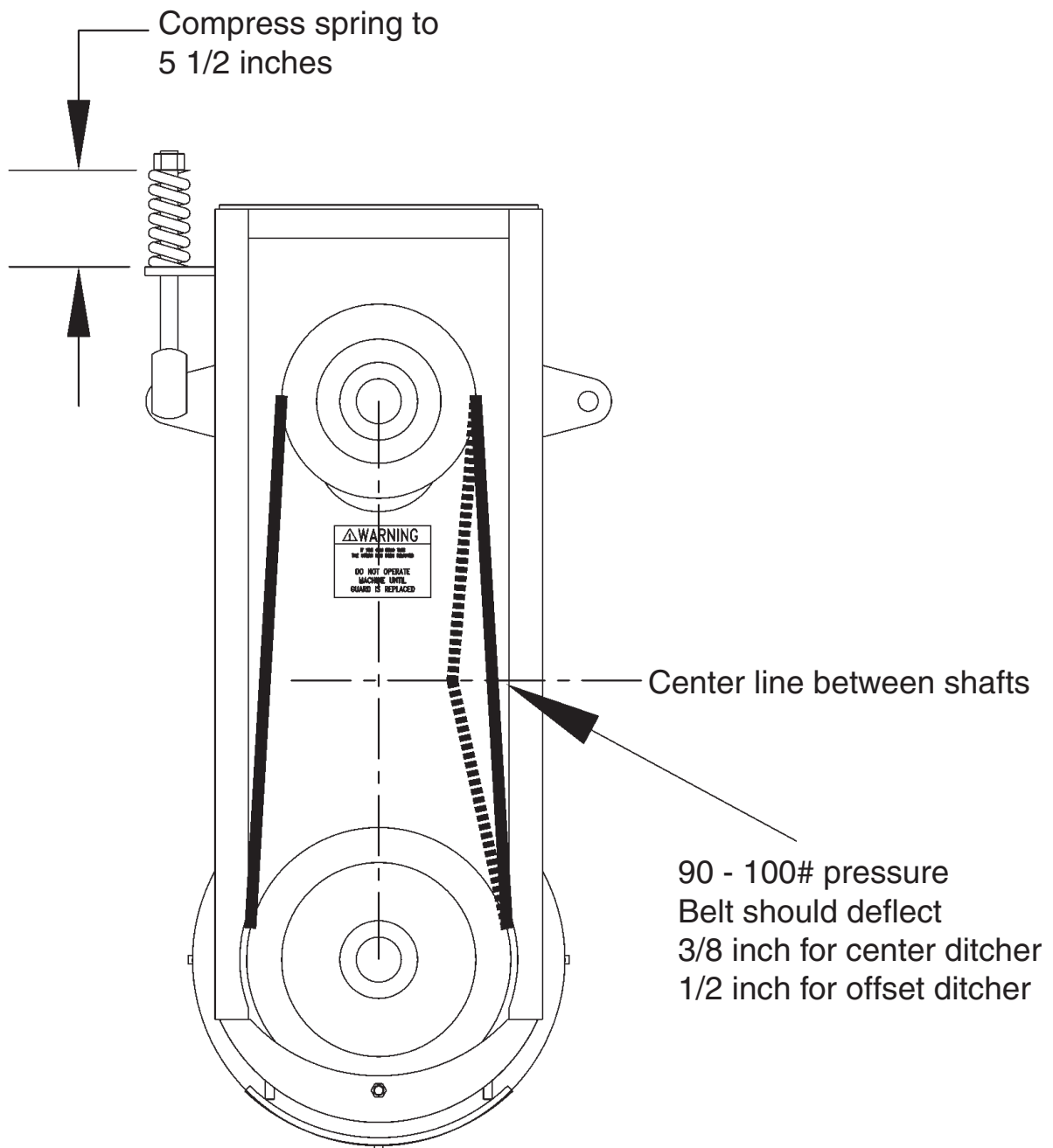
Tighten bushing bolts to 60 ft. lbs.



Grease telescoping shaft and universal joints every 50 hours.





Belt Tension Setting



Troubleshooting

Symptom	Problem	Correction
Ditch to shallow	Adjustment	Lower 3 pt on tractor Retract 3rd link on tractor 3 point Adjust slide shoe up
Ditch to deep	Adjustment	Raise 3 pt on tractor Extend 3rd link on tractor 3 point Adjust slide shoe down
Non uniform ditching	Improper tractor speed Reduce tractor ground speed or PTO RPM	Reduce tractor ground speed Run PTO at proper RPM
Discharging material not consistent	Dirt build up on discharge spout Ditching to deep in one pass	Clean spout Adjust machine and make two passes
Leaving ridge on discharge side of blade rotor	Improper tractor ground speed Ditching to deep	Operate tractor at proper ground speed Adjust machine and make two passes
Excessive vibration	Loss of rotor knife Rotor deformation Rotor bearing worn out	Install new knife Straighten the rotor or replace it Replace bearing
Belt breakage	Incorrect tension Misalignment between sheaves Residue in the rotor drive	Adjust belt for proper tension Align sheaves Clean and replace shield
Belt slippage	Incorrect tension Improper ground speed Ditching to deep in one pass	Adjust belt for proper tension Reduce ground speed Make two passes

Torque Values

SAE Grade No.	5		8	
Bolt Head Identification				
Bolt Size	Lb - Ft	N - m	Lb - Ft	N - m
1/4"	9 - 11	12 - 15	12 - 15	16 - 20
5/16"	17 - 20.5	23 - 28	24 - 29	33 - 39
3/8"	35 - 42	48 - 57	45 - 54	61 - 73
7/16"	54 - 64	73 - 87	70 - 84	95 - 114
1/2"	80 - 96	109 - 130	110 - 132	149 - 179
5/8"	150 - 180	203 - 244	220 - 264	298 - 358
3/4"	270 - 324	366 - 439	380 - 456	515 - 618
7/8"	400 - 480	542 - 651	600 - 720	814 - 976
1"	580 - 696	787 - 944	900 - 1080	1220 - 1464
1-1/8"	800 - 880	1085 - 1193	1280 - 1440	1736 - 1953
1-1/4"	1120 - 1240	1519 - 1681	1820 - 2000	2468 - 2712
1-3/8"	1460 - 1680	1980 - 2278	2380 - 2720	3227 - 3688
1-1/2"	1940 - 2200	2631 - 2983	3160 - 3560	4285 - 4827

Storage

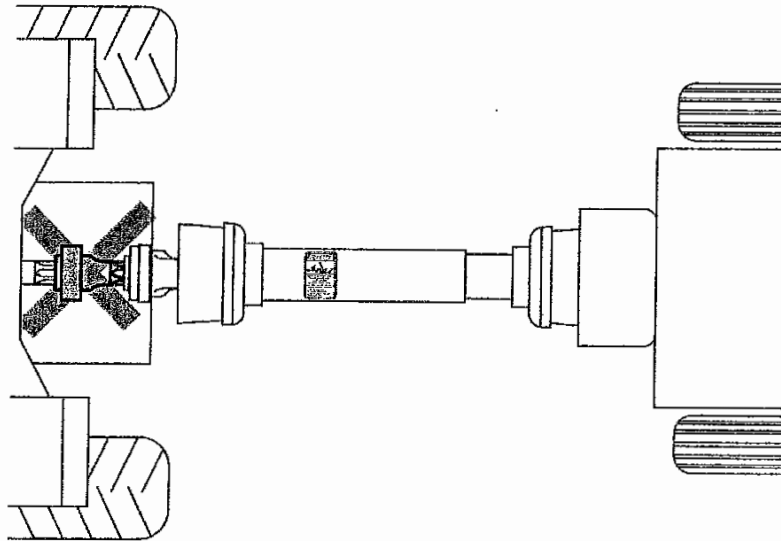
End of Season:

1. Shelter the power ditcher in a dry place.
2. Clean the power ditcher thoroughly inside and out. Trash and dirt will draw moisture and cause rust.
3. Thoroughly lubricate the machine according to the Lubrication Section.
4. Paint all parts from which the paint has been worn.
5. List the replacement parts that will be needed and order them early. The dealer at this time can expedite delivery of parts and install them during slack periods avoiding delays next season.

Beginning of Season:

1. Lubricate complete machine; this will force any collected moisture out of the bearings (see Lubrication Section).
2. Tighten all loose bolts, nuts and set screws.
3. Replace blades if worn.
4. Check belt adjustment and belt guides
5. Review your operator's manual.

OEM DRIVESHAFT DESIGN GUIDE TO ELIMINATE PTO ADAPTORS



Agriculture is recognized as one of the more hazardous occupations. Today's farmer spends long hours in close proximity to increasingly complex and powerful machinery. In order to avoid accidents, everyone from the component suppliers, to the company who manufactures and assembles the machinery, to the dealers and ultimately the actual user must keep safety in mind.

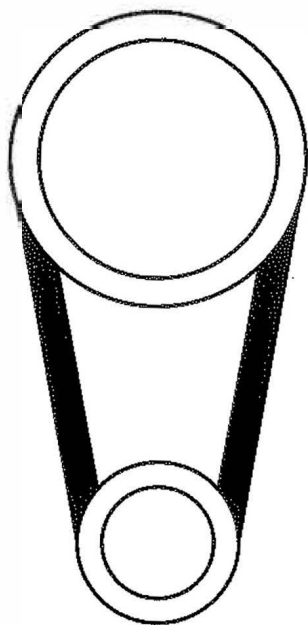
PTO adaptors have been used for many years to connect unmatched splines of tractor PTO shafts to implement PTO driveshfts. ADMA advises against the use of PTO adaptors which may defeat the purpose of the tractor's master shield and adversely affect the performance of the PTO driveshft. International safety standards state, "No device (e.g. adaptors) shall be installed between the tractor PTO shaft and the primary PTO driveshft."

ADMA is concerned that PRO driveshfts be used in the safest possible manner. This OEM Design Guide contains safety information directly related to the PTO driveshfts of agricultural implements. More information may be found in general safety literature and in the relevant standards published by the American Society of Agricultural and Biological Engineers (ASABE), the Canadian Standards Association (CSA), the International Standards Organization (ISO) and the Society of Automotive Engineers (SAE).

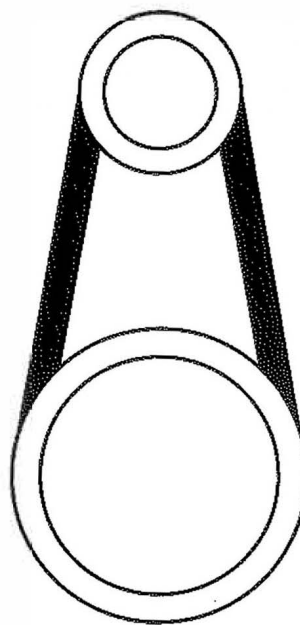
How to switch from 540 RPM to 1000 RPM

SHEAVE CONFIGURATION

540 RPM



1000 RPM



Registration Form

Offset Cut Power Ditcher

Please Return With-in 30 Days of Purchase

Name: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Email: _____

How did you hear about us:

☐ Social Media ☐ Google ☐ Farm Show ☐ Friend ☐ Ad ☐ Dealer

Other: _____

Serial Number: _____ (located on right-hand side of the drive housing)

Dealer Purchased From

Name: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Mail to: Remlinger Manufacturing Company, Inc.
16394 US 224
Kalida, OH 45853

Fax to: 1-419-532-2244

Email to: agsales@remlingermfg.com

Thank you for purchasing Remlinger Equipment!

This Page is Intentionally Left Blank

This Page is Intentionally Left Blank



ISO9001:2015 certified

Remlinger Manufacturing

16394 US 224
PO Box 299
Kalida, OH 45853

Toll Free 1-800-537-7370

Phone (419) 532-3647

Fax (419) 532-2244

technicalsupport@remlingermfg.com

www.remlingermfg.com



Parts Book



Email Tech Support