

NEW HOLLAND

345W

355W

365W

**REPAIR
MANUAL**



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SECTION 1

GENERAL INFORMATION

References to the RIGHT and LEFT sides of the header are determined by facing the direction of forward travel.

All data given in this manual are subject to production variations. Dimensions and weights are approximate. Illustrations do not necessarily show headers in standard condition. For exact information, please ask your authorized New Holland dealer.

SERIAL NUMBER

The serial number plate, 1, is located on the rear of the header.

The pickup is assembled using metric hardware wherever possible. English hardware is used as required to use New Holland standard parts. Most of the English hardware is in the reel.

The pictures in this manual may not be of your windrow pickup. This manual covers three models of windrow pickups sold in different areas and with different options. The decals shown may be different than on your unit due to requirements in different countries. Check the operator's manual to determine the correct decals for your windrow pickup.

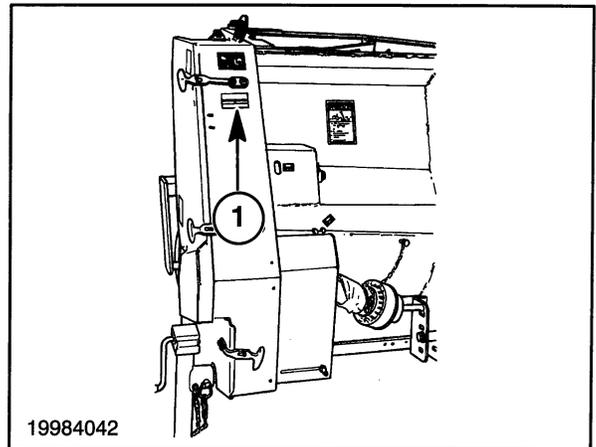


Figure 1-1

PRECAUTIONARY STATEMENTS

PERSONAL SAFETY

Throughout this manual and on machine decals, you will find precautionary statements (“CAUTION”, “WARNING”, and “DANGER”) followed by specific instructions. These precautions are intended for the personal safety of you and those working with you. Please take the time to read them.



CAUTION: THE WORD “CAUTION” IS USED WHERE A SAFE BEHAVIORAL PRACTICE ACCORDING TO OPERATING AND MAINTENANCE INSTRUCTIONS AND COMMON SAFETY PRACTICES WILL PROTECT THE OPERATOR AND OTHERS FROM ACCIDENT INVOLVEMENT.



WARNING: THE WORD “WARNING” DENOTES A POTENTIAL OR HIDDEN HAZARD WHICH HAS A POTENTIAL FOR SERIOUS INJURY. IT IS USED TO WARN OPERATORS AND OTHERS TO EXERCISE EVERY APPROPRIATE MEANS TO AVOID A SURPRISE INVOLVEMENT WITH MACHINERY.



DANGER: THE WORD “DANGER” DENOTES A FORBIDDEN PRACTICE IN CONNECTION WITH A SERIOUS HAZARD.

FAILURE TO FOLLOW THE “CAUTION”, “WARNING”, AND “DANGER” INSTRUCTIONS MAY RESULT IN SERIOUS BODILY INJURY OR DEATH.

MACHINE SAFETY

Additional precautionary statements (“ATTENTION” and “IMPORTANT”) are followed by specific instructions. These statements are intended for machine safety.

ATTENTION: The word “ATTENTION” is used to warn the operator of potential machine damage if a certain procedure is not followed.

IMPORTANT: The word “IMPORTANT” is used to inform the reader of something he needs to know to prevent minor machine damage if a certain procedure is not followed.



WARNING!

YOU CAN HELP TO AVOID FARM ACCIDENTS BY FOLLOWING THESE PRECAUTIONS:

- 1. DO NOT ATTEMPT TO LUBRICATE OR MAKE ANY ADJUSTMENTS ON THE HARVESTER OR ATTACHMENT WHILE IT IS IN MOTION OR IF THE ENGINE IS RUNNING.**
- 2. DO NOT PERMIT ANYONE TO RIDE ON THE HARVESTER OR ATTACHMENT.**
- 3. KEEP ALL SHIELDS IN PLACE WHILE THE HARVESTER OR ATTACHMENT IS IN OPERATION.**
- 4. IF THE FEEDING AREA OF THE HARVESTER OR ATTACHMENT BECOMES PLUGGED, DO NOT ATTEMPT TO UNPLUG OR REMOVE ANY MATERIAL WHILE THE MACHINE IS IN OPERATION OR IF THE ENGINE IS RUNNING.**
- 5. DO NOT ATTEMPT TO FORCE MATERIAL INTO THE HARVESTER OR ATTACHMENT WITH YOUR FEET OR HANDS WHILE IT IS IN OPERATION.**
- 6. AFTER MAKING ADJUSTMENTS, BE SURE ALL TOOLS ARE REMOVED FROM THE ATTACHMENT AND CHECK THE ATTACHMENT THOROUGHLY FOR LOOSE PARTS OR BOLTS.**
- 7. DO NOT WORK UNDER THE ATTACHMENT WHEN IT IS IN THE RAISED POSITION UNLESS IT IS PROPERLY BLOCKED.**
- 8. BE SURE THAT THE BRAKES ARE LOCKED BEFORE LEAVING THE CAB.**
- 9. USE FLASHING LIGHTS OR REFLECTORIZED SIGNS TO HELP PREVENT HIGHWAY ACCIDENTS.**

MINIMUM HARDWARE TIGHTENING TORQUES

IN FOOT POUNDS (NEWTON-METERS) FOR NORMAL ASSEMBLY APPLICATIONS

METRIC HARDWARE AND LOCKNUTS

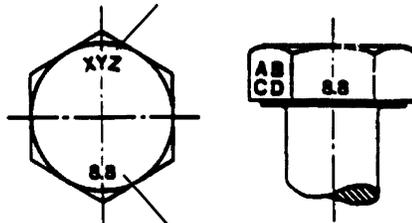
NOMINAL SIZE	CLASS 5.8		CLASS 8.8		CLASS 10.9		LOCKNUT CL.8 W/CL8.8 BOLT
	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	
M4	15* (1.7)	19* (2.2)	23* (2.6)	30* (3.4)	33* (3.7)	42* (4.8)	16* (1.8)
M6	51* (5.8)	67* (7.6)	79* (8.9)	102* (12)	115* (13)	150* (17)	56* (6.3)
M8	124* (14)	159* (18)	195* (22)	248* (28)	274* (31)	354* (40)	133* (15)
M10	21 (28)	27 (36)	32 (43)	41 (56)	45 (61)	58 (79)	22 (30)
M12	36 (49)	46 (63)	55 (75)	72 (97)	79 (107)	102 (138)	39 (53)
M16	89 (121)	117 (158)	137 (186)	177 (240)	196 (266)	254 (344)	97 (131)
M20	175 (237)	226 (307)	277 (375)	358 (485)	383 (519)	495 (671)	195 (265)
M24	303 (411)	392 (531)	478 (648)	619 (839)	662 (897)	855 (1160)	338 (458)

NOTE: Torque values shown with * are inch pounds.

IDENTIFICATION

HEX CAP SCREW AND CARRIAGE BOLTS CLASSES 5.6 AND UP

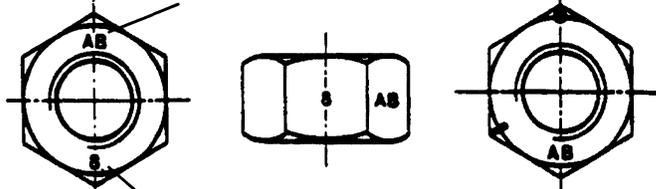
MANUFACTURER'S IDENTIFICATION



PROPERTY CLASS

HEX NUTS AND LOCKNUTS CLASSES 05 AND UP

MANUFACTURER'S IDENTIFICATION



PROPERTY CLASS

CLOCK MARKING

MINIMUM HARDWARE TIGHTENING TORQUES IN FOOT POUNDS (NEWTON-METERS) FOR NORMAL ASSEMBLY APPLICATIONS

INCH HARDWARE AND LOCKNUTS

NOMINAL SIZE	SAE GRADE 2		SAE GRADE 5		SAE GRADE 8		LOCKNUTS		NOMINAL SIZE
	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	GR.B w/GR5 BOLT	GR.C w/GR8 BOLT	
1/4	55* (6.2)	72* (8.1)	86* (9.7)	112* (13)	121* (14)	157* (18)	61* (6.9)	86* (9.8)	1/4
5/16	115* (13)	149* (17)	178* (20)	229* (26)	250* (28)	324* (37)	125* (14)	176* (20)	5/16
3/8	17 (23)	22 (30)	26 (35)	34 (46)	37 (50)	48 (65)	19 (26)	26 (35)	3/8
7/16	27 (37)	35 (47)	42 (57)	54 (73)	59 (80)	77 (104)	30 (41)	42 (57)	7/16
1/2	42 (57)	54 (73)	64 (87)	83 (113)	91 (123)	117 (159)	45 (61)	64 (88)	1/2
9/16	60 (81)	77 (104)	92 (125)	120 (163)	130 (176)	169 (229)	65 (88)	92 (125)	9/16
5/8	83 (112)	107 (145)	128 (174)	165 (224)	180 (244)	233 (316)	90 (122)	127 (172)	5/8
3/4	146 (198)	189 (256)	226 (306)	293 (397)	319 (432)	413 (560)	160 (217)	226 (306)	3/4
7/8	142 (193)	183 (248)	365 (495)	473 (641)	515 (698)	667 (904)	258 (350)	364 (494)	7/8
1	213 (289)	275 (373)	547 (742)	708 (960)	773 (1048)	1000 (1356)	386 (523)	545 (739)	1

NOTE: Torque values shown with * are inch pounds.

IDENTIFICATION CAP SCREWS AND CARRIAGE BOLTS



SAE GRADE 2



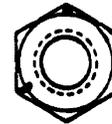
SAE GRADE 5



SAE GRADE 8



REGULAR NUTS

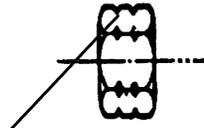


SAE GRADE 5
HEX NUTS



SAE GRADE 8
HEX NUTS

LOCKNUTS



GRADE IDENTIFICATION

GRADE A NO NOTCHES

GRADE B ONE CIRCUMFERENTIAL NOTCH

GRADE C TWO CIRCUMFERENTIAL NOTCHES



GRADE IDENTIFICATION

GRADE A NO MARKS

GRADE B THREE MARKS

GRADE C SIX MARKS

MARKS NEED NOT BE LOCATED
AT CORNERS



GRADE IDENTIFICATION

GRADE A NO MARK

GRADE B LETTER B

GRADE C LETTER C

SECTION 2

PICKUP

PICKUP TINES

To replace a few pickup tines, it is easiest to lie on the ground behind the header and reach through the slots, 1, in the frame.

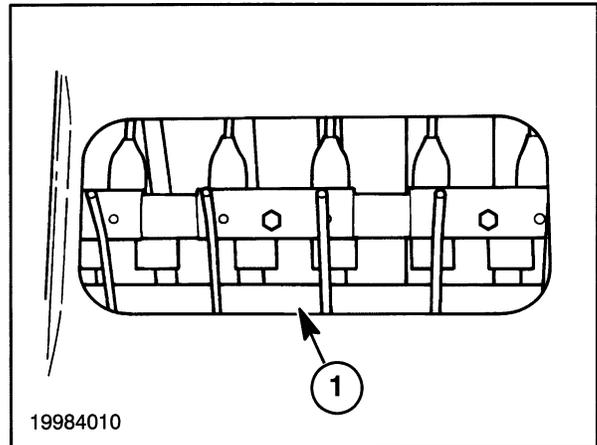


Figure 2-2

To replace a larger number of tines, it is easier to remove a section of guards, 1. Take out the three bolts, 2, at the top and three at the bottom that fasten the guard segment to the frame. The frame has weld nuts for these bolts. Cock the guards as required to remove the guard segment.

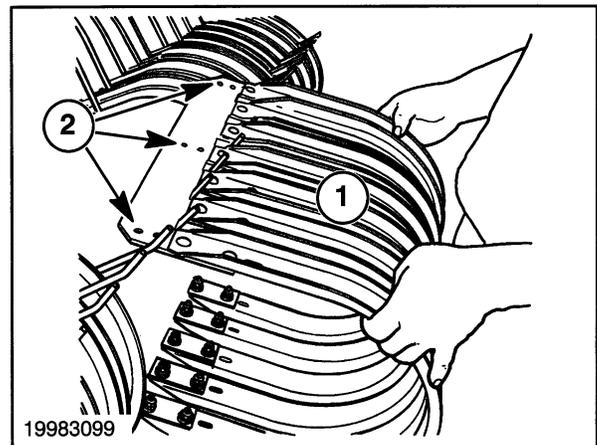


Figure 2-3

Remove the 5/16" bolt, 1, from each pair of tines, 2, to be replaced. Install the new tines in the proper direction on the tooth pipe, 3. The bolt head is against the tine mounting; the locknut is against the tooth pipe. Tighten the locknut to 41 N·m (30 ft. lbs.).

Install the guard segment if it was removed.

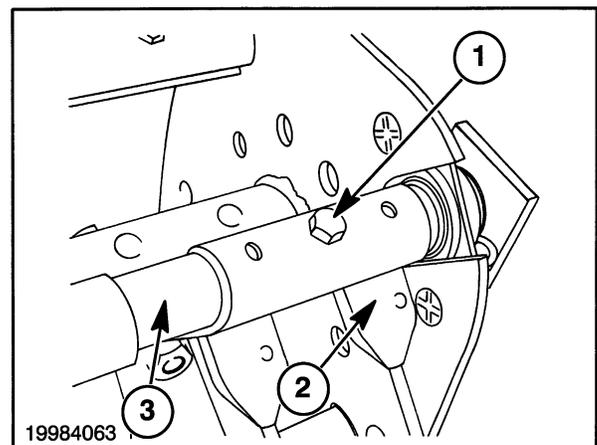


Figure 2-4

PICKUP GUARDS

Each individual guard and each guard segment is symmetrical. The parts can be installed reversed to even out wear or if there is damage to some of the guards.

Individual guards, 1, can be replaced by reaching through the slots at the lower rear of the frame. There are two carriage bolts, 2, at the top and two at the bottom of each guard. The end guards, 3, have two hex bolts, 4, at both ends. There are weld nuts in the frame for the end guards. Make sure the guard is located with even spacing on both sides to provide clearance for the tine.

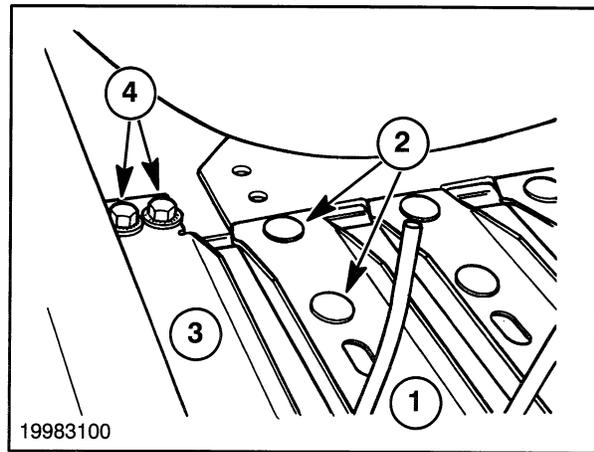


Figure 2-5

To replace several guards in one area it is easier to remove the guard segment, 1. Take out the three bolts at the top and three at the bottom that fasten the guard segment to the frame. The frame has weld nuts for these bolts. Cock the guards as required to remove the guard segment.

Replace the damaged guards from the segment. Install the guard segment.

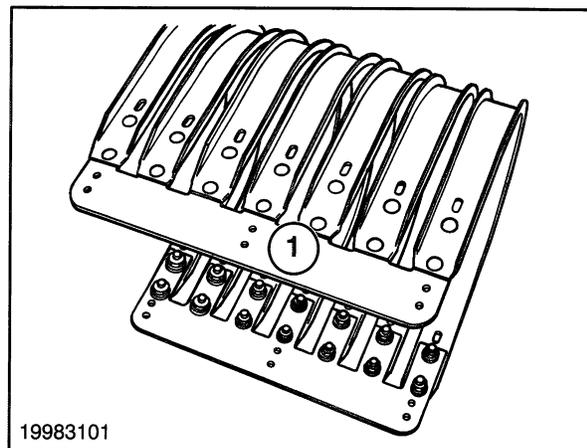


Figure 2-6

PICKUP CAM FOLLOWER BEARINGS

There is a set of four cam bearings on the left end or both ends of the pickup.

The bearing, 1, is clamped on the tooth pipe arm, 2, with a 5/8" UNF locknut, 3. It must be tightened to 122 N·m (90 ft. lbs.). An 8 mm (5/16") allen wrench is required to hold the bearing tight.

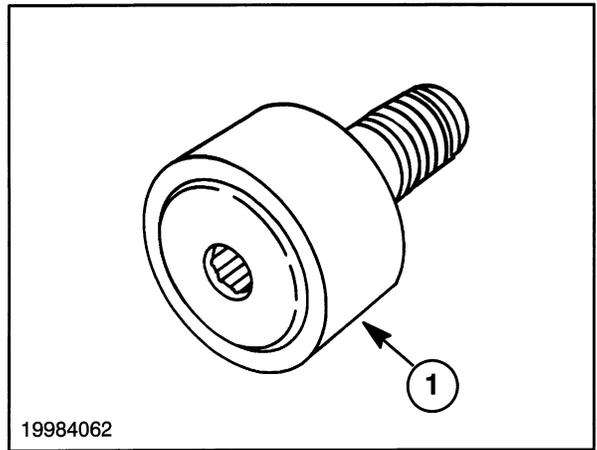


Figure 2-7

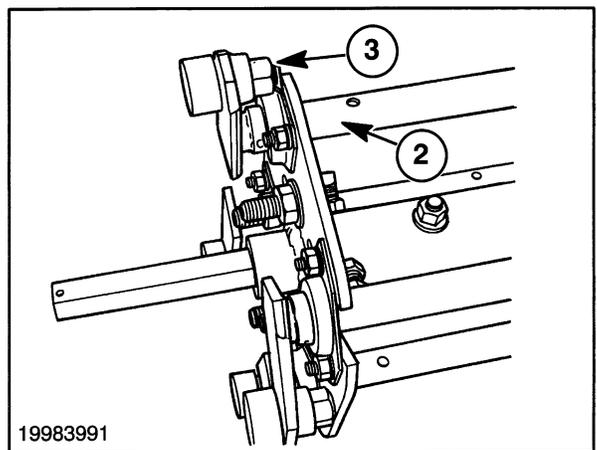


Figure 2-8

LEFT REEL CAM FOLLOWER BEARING

Remove the four bolts, 1, from the lower left shield. Remove the shield.

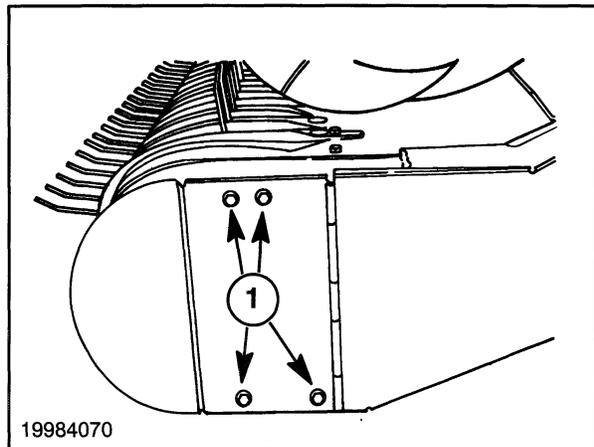


Figure 2-9

The cam follower bearings, 1, are accessible through matched holes, 2, in the cam and the pickup frame. The slip clutch, 3, and the pickup drive chain, 4, must be removed.

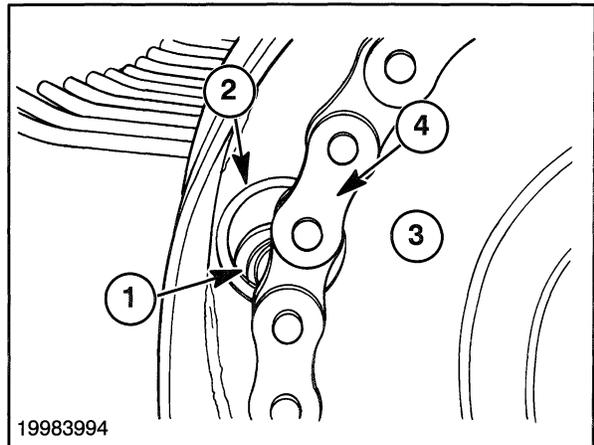


Figure 2-10

Loosen the idler, 1, and slide the assembly out. Remove the chain, 2, by breaking it and rotating it off the driven sprocket, 3. Another method is to take the chain and slip clutch off together without breaking the chain.

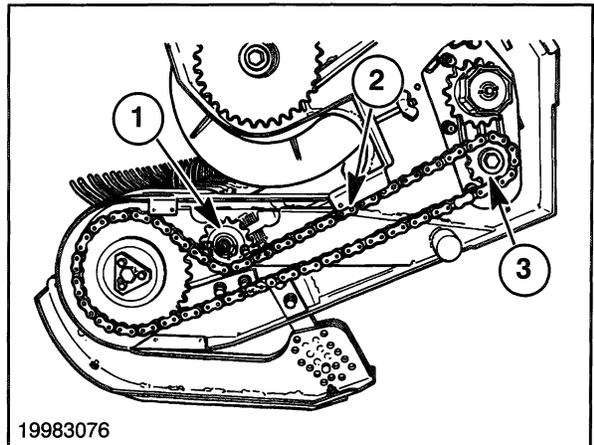
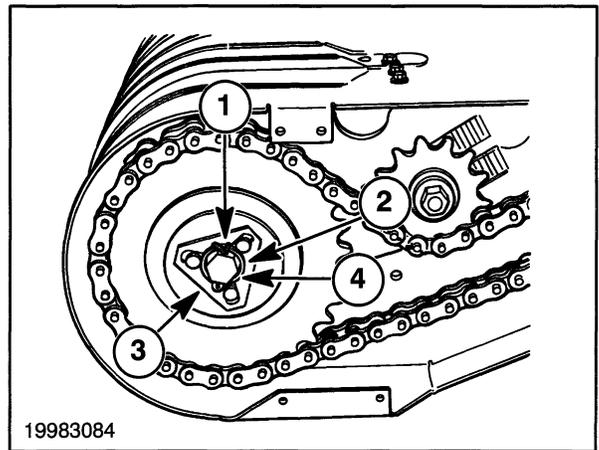


Figure 2-11

Remove the cotter pin, 1; thin washer, 2; and locking plate, 3, from the end of the reel drive shaft, 4.

If the slip clutch has not been removed before, use a file to clean the end of the hex shaft.

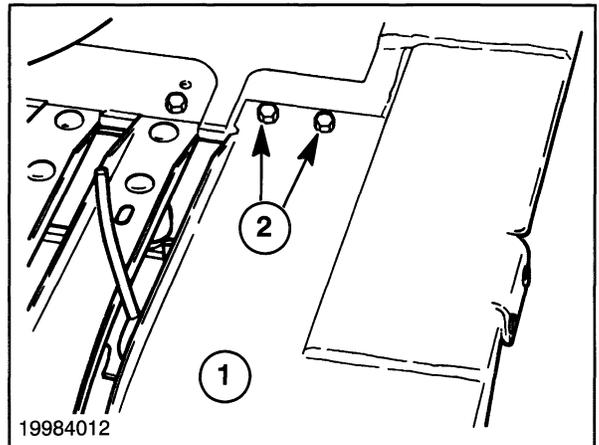
The clutch is a loose fit on the hex shaft. It can be pulled off by hand or with the aid of a crowbar.



19983084

Figure 2-12

Remove the left end pickup guard, 1, by removing the two bolts, 2, at the top and the bottom. There are weld nuts in the frame for these bolts.



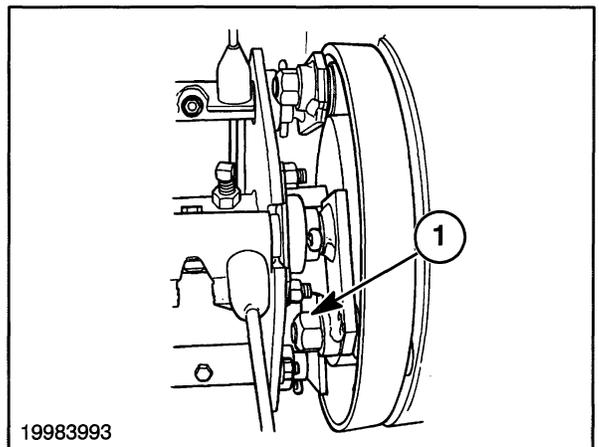
19984012

Figure 2-13

Rotate the pickup until the failed bearing lines up with the hole in the cam. Use a 15/16" (24 mm) wrench and a 5/16" or 8 mm allen wrench to remove the locknut, 1. Remove the failed bearing through the access hole. Push the new bearing through the access hole into the arm. Make sure the bearing will be following the tooth pipe as it rotates. Tighten the locknut to 122 N·m (90 ft. lbs.). Tighten the locknuts on any bearings that do not require replacement.

Install the guard.

Install the slip clutch assembly and the drive chain the same way it was removed.



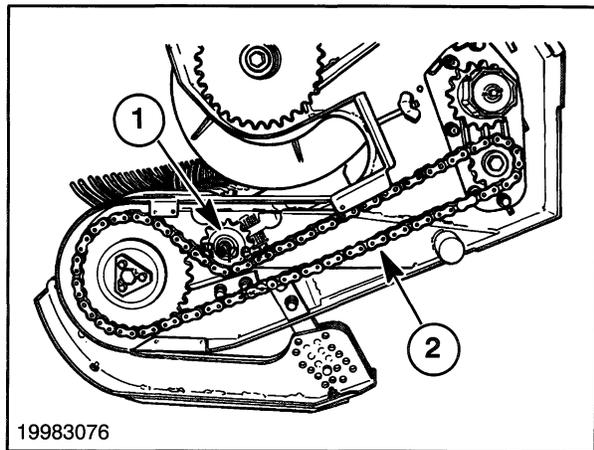
19983993

Figure 2-14

Tighten the idler, 1, until the long slack side span, 2, of the chain will deflect 3 mm - 6 mm (1/8" - 1/4") when a 6.8 kg (15-lb.) load is applied perpendicular to the midpoint of the span.

Tighten the 5/8" idler bolt to 224 N·m (165 ft. lbs.).

Install the lower door with the four bolts.

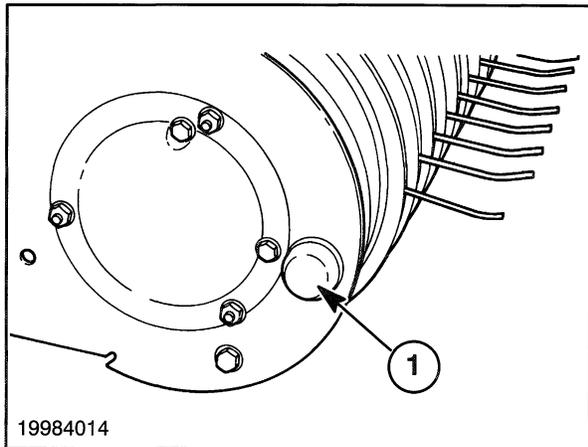


19983076

Figure 2-15

RIGHT REEL CAM FOLLOWER BEARING

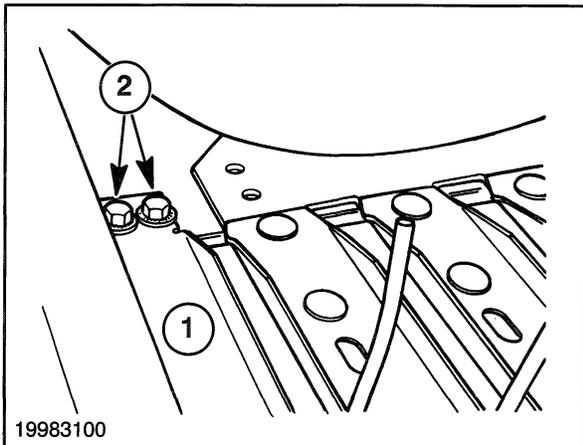
Remove the hubcap, 1. Use a large screwdriver.



19984014

Figure 2-16

Remove the right end pickup guard, 1, by removing the two bolts, 2, at the top and the bottom. There are weld nuts in the frame for these bolts.



19983100

Figure 2-17

Rotate the pickup until the failed bearing lines up with the hole in the cam. Use a 15/16" (24 mm) wrench and a 5/16" or 8 mm allen wrench to remove the locknut, 1. Remove the failed bearing through the access hole. Push the new bearing through the access hole into the arm. Make sure the bearing will be following the tooth pipe as it rotates. Tighten the locknut to 122 N·m (90 ft. lbs.). Tighten the locknuts on any bearings that do not require replacement.

Install the guard.

Push the hubcap back in position.

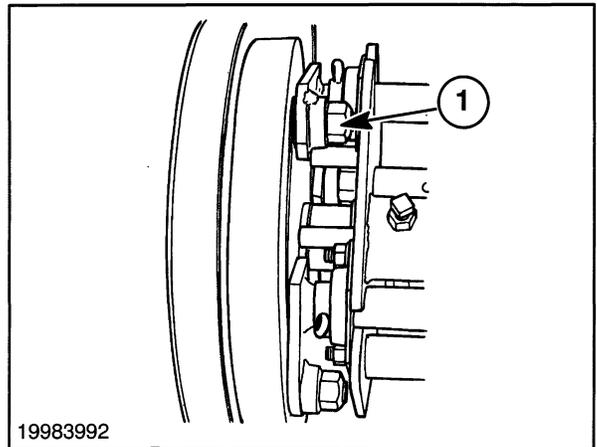


Figure 2-47

REEL CAM

On the end of the pickup with the failed cam, remove all the cam follower bearings as previously described.

Remove the end segment of guards by removing the three bolts, 1, at the top and bottom.

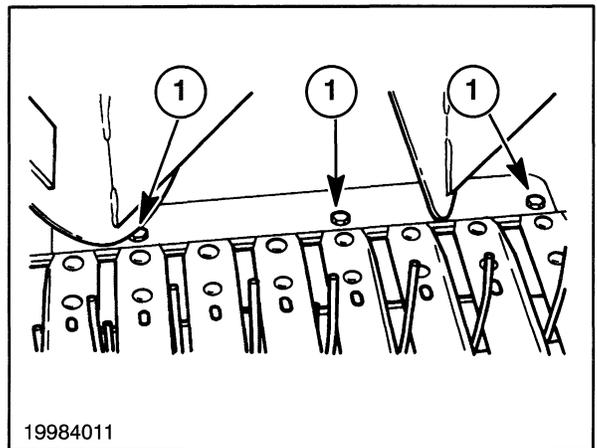


Figure 2-48

To remove the cam on the right end, remove the three nuts, 1, holding the shield over the end of the reel shaft.

To replace the cam, the end of the reel shaft must be supported. Use a jack or a hoist.

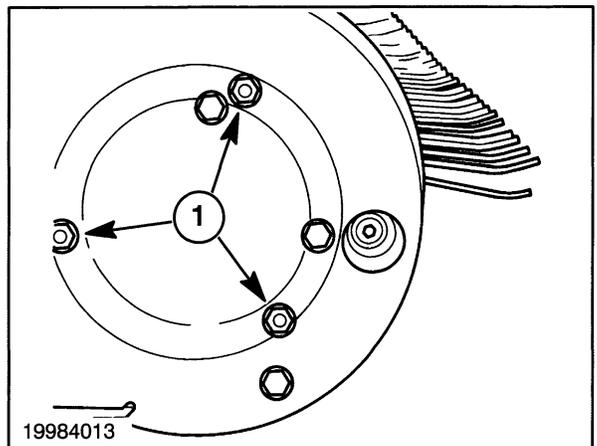


Figure 2-49

Loosen any jam nuts, 1, and setscrews, 2, which clamp the hex shaft in the end of the reel shaft. Not all the hex shafts have setscrews. The left end also has a through bolt that must be removed.

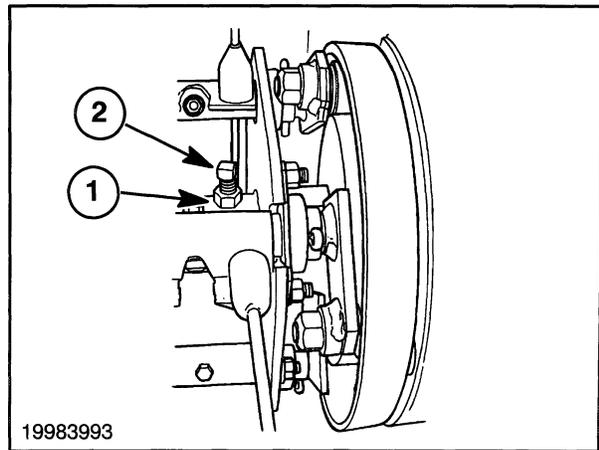


Figure 2-21

Remove the three flange bolts, 1, on the end with the failed cam. Pull the hex shaft out of the reel tube. The bearing can stay on the shaft. Save the washers from between the end of the reel shaft and the cam.

Remove the three bolts, 2, that are threaded into the cam. Save the washers and/or spacers from between the cam and the header frame. Slide the cam out of the pickup.

Make sure the new cam is the same design as the failed part.

Install the three cam bolts through the frame enough to hold the washers and/or spacers that belong between the cam and frame. Carefully slip the cam into position and start each bolt into the cam. Tighten the bolts to 56 N·m (41 ft. lbs.).

Apply grease to the end of the hex shaft that fits in the reel shaft. Install the hex shaft back into the reel tube. Install the same number of washers that were removed. Orientate the shaft the same as it was. Tighten any setscrews at the same position they were to 113 N·m (83 ft. lbs.). If the left shaft was removed, install the bolt through the reel shaft before the setscrews are tightened.

Install the three flange bolts.

Remove the support at the end of the reel.

Push each cam bearing through the access hole into the arm. Make sure the bearing will be following the tooth pipe as it rotates. Tighten the locknuts to 122 N·m (90 ft. lbs.).

Install the guards.

On the left end, install the slip clutch assembly and the drive chain the same way it was removed.

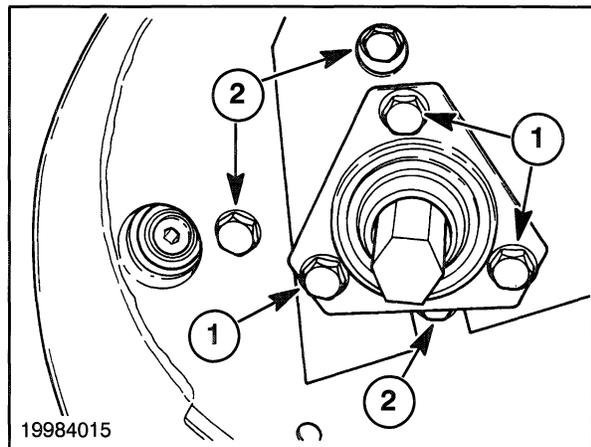


Figure 2-22

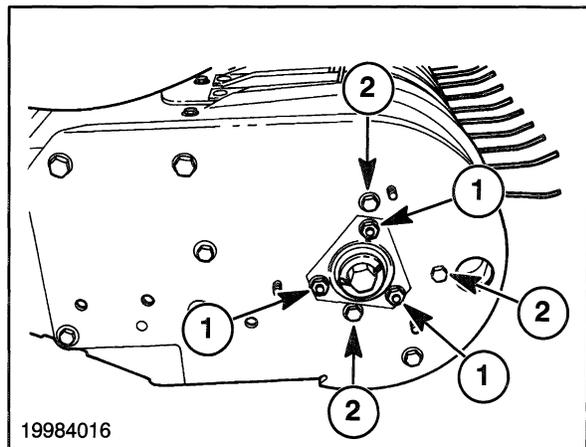


Figure 2-23

Tighten the idler, 1, until the long slack side span, 2, of the chain will deflect 3 mm - 6 mm (1/8" - 1/4") when a 6.8 kg (15-lb.) load is applied perpendicular to the midpoint of the span.

Tighten the 5/8" idler bolt to 224 N·m (165 ft. lbs.).

Install the lower door with the four bolts.

On the right end, install the end cap and secure with the three 10 mm nuts.

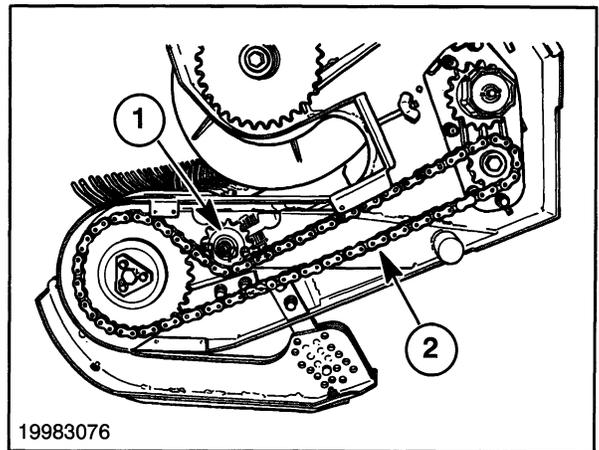


Figure 2-24

TOOTH PIPE AND TOOTH PIPE BEARINGS

If the bearing is on the end of the 345W tooth pipe, it can be replaced by removing one guard segment. Take off the end tine and remove the bearing. For the other bearings and the tooth pipes the tooth pipe will have to be removed.

Remove all the guard segments over the pipe to be removed. On a 365W this will be half the guards.

Remove the two bolts, 1, holding each tooth bar bearing, 2, to the disc, 3, on the reel shaft, 4. Take the tooth pipe assembly out of the reel.

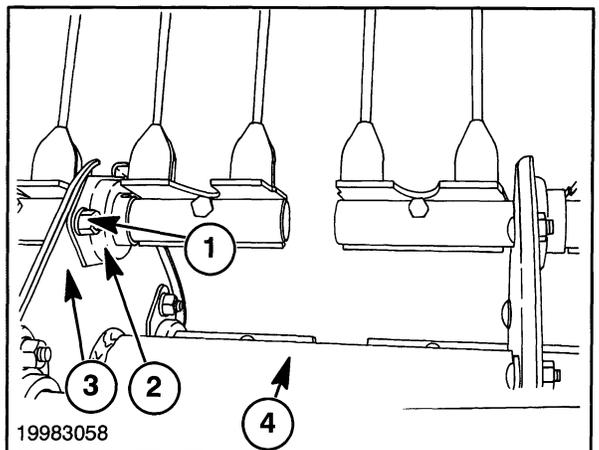


Figure 2-25

To replace a bearing, remove all the parts up to the bearing. All the bearings have a hardened cotter pin, 1. Install the new part and reassemble the tooth pipe.

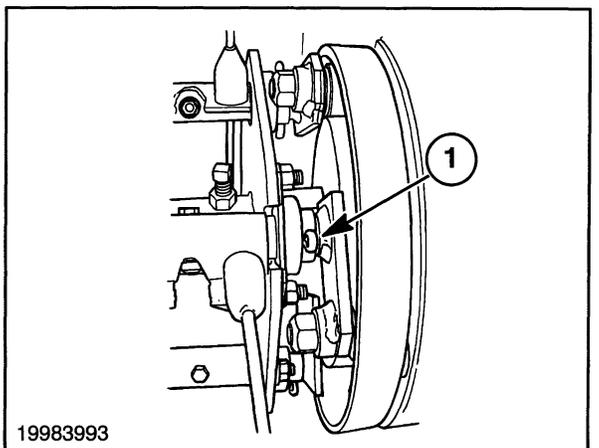


Figure 2-26

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Want to get more information,
Please click here, Then get the complete
manual**

JustClickHere 

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please download the PDF document first, and then
click on it.**

**Have any questions please write to me:
admin@servicemanualperfect.com**