

NEW HOLLAND

H7460
H7560

SERVICE MANUAL

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NEW HOLLAND AGRICULTURE

SERVICE

84207371 3/09
1st Printing

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H7460, H7560
SERVICE MANUAL
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The sections used through out all New Holland product Service manuals may not be used for each product. Each Service manual will be made up of one or several books. Each book will be labeled as to which sections are in the overall Service manual and which sections are in each book.

The sections listed above are the sections utilized for the H7460 and H7560.

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SPECIAL TOOLS

Tool Number	Description/Use
Section 31	
NHO1386	Pivot tongue gearbox neck cap screws
610R	Snap ring remover
Local Manufacture	Neck lock nut removal
Local Manufacture	Holding tool for neck housing
Local Manufacture	Neck rolling torque measurement
Section 58	
FNH23ET95	Top cap bearing cover
FNH01221-2	Cutter bar tie bolt holding tool
FNH01221-3	Cutter bar wrench

SPECIFICATIONS

MODEL H7460

	Standard Tongue	Swivel Hitch Tongue
Overall Width		
Transport position	4801 mm (15 ft 9 in)	4801 mm (15 ft 9 in)
Field position	7087 mm (23 ft 3 in)	7595 mm (24 ft 11 in)
Overall Length		
Transport position	8966 mm (29 ft 5 in)	9271 mm (30 ft 5 in)
Field position	7366 mm (24 ft 2 in)	7670 mm (25 ft 2 in)
Height		
Transport position	2032 mm (6 ft 8 in)	2032 mm (6 ft 8 in)
Field position	1727 mm (5 ft 8 in)	1727 mm (5 ft 8 in)
Ground Clearance	457 mm (18 in)	457 mm (18 in)
Wheel Tread Width	3772 mm (148.5 in)	3772 mm (148.5 in)
Weight	2948 kg (6500 lb)	2948 kg (6500 lb)

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MINIMUM HARDWARE TIGHTENING TORQUES

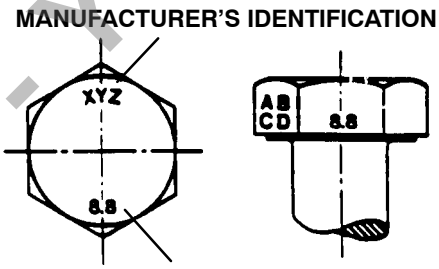
IN NEWTON-METERS (FOOT POUNDS) FOR NORMAL ASSEMBLY APPLICATIONS

METRIC NON-FLANGED HARDWARE AND LOCKNUTS

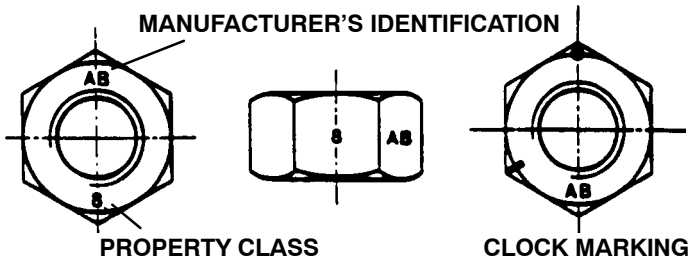
NOMINAL SIZE	CLASS 5.8		CLASS 8.8		CLASS 10.9		LOCKNUT CL.8 W/CL8.8 BOLT
	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	
M4	1.7 (15)*	2.2 (19)*	2.6 (23)*	3.4 (30)*	3.7 (33)*	4.8 (42)*	2.3 (20)*
M6	5.8 (51)*	7.6 (67)*	8.9 (79)*	12 (102)*	13 (115)*	17 (150)*	7.8 (69)*
M8	14 (124)*	18 (159)*	22 (195)*	28 (248)*	31 (274)*	40 (354)*	19 (169)*
M10	28 (21)	36 (27)	43 (32)	56 (41)	61 (45)	79 (58)	38 (28)
M12	49 (36)	63 (46)	75 (55)	97 (72)	107 (79)	138 (102)	66 (49)
M16	121 (89)	158 (117)	186 (137)	240 (177)	266 (196)	344 (254)	164 (121)
M20	237 (175)	307 (226)	375 (277)	485 (358)	519 (383)	671 (495)	330 (243)
M24	411 (303)	531 (392)	648 (478)	839 (619)	897 (662)	1160 (855)	572 (422)

NOTE: Torque values shown with * are inch pounds.

IDENTIFICATION
HEX CAP SCREW AND CARRIAGE BOLTS
CLASSES 5.6 AND UP



HEX NUTS AND LOCKNUTS
CLASSES 05 AND UP

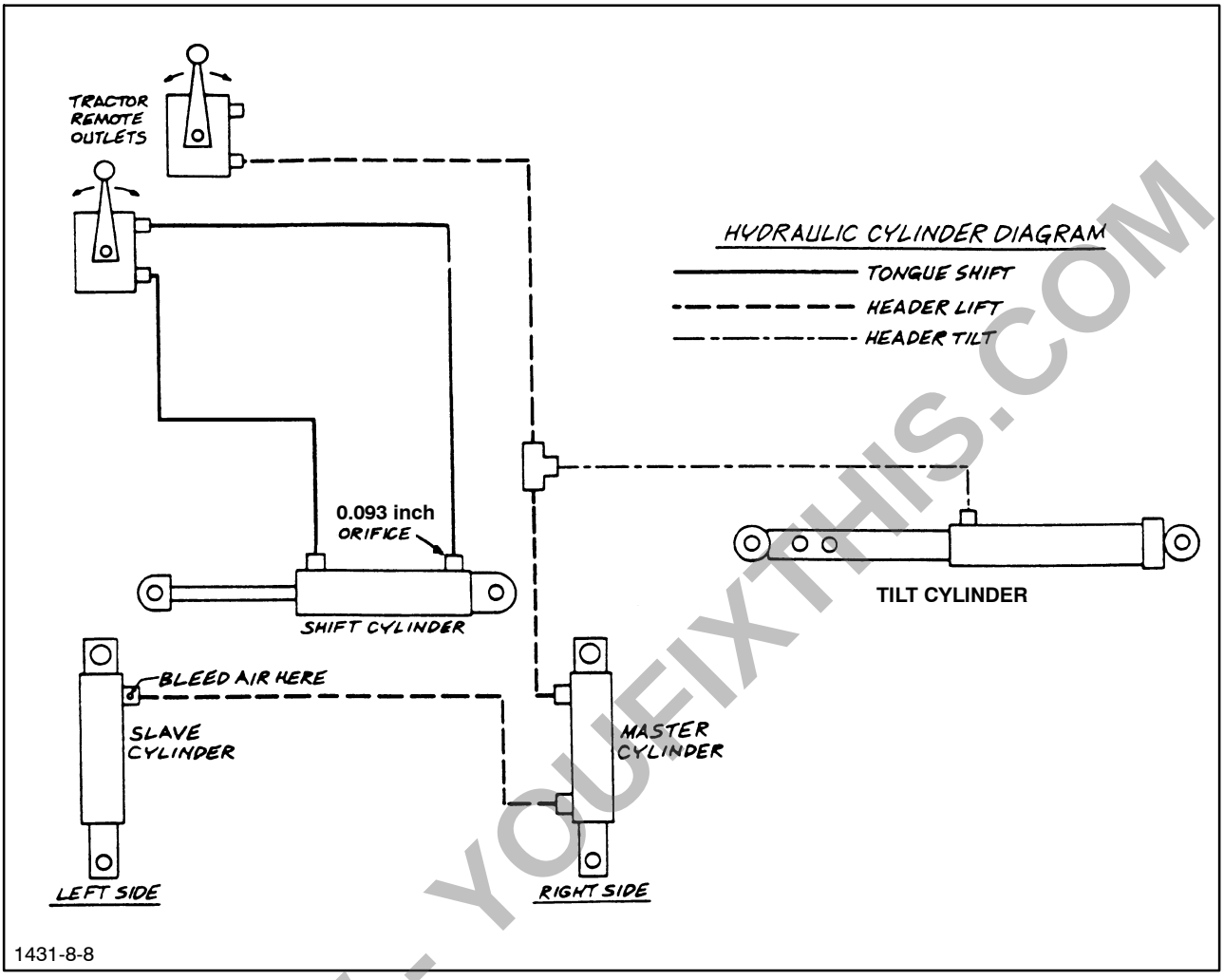


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HYDRAULIC DIAGRAM



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⚠ WARNING ⚠

Fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Always protect the skin and eyes from escaping fluid under pressure.

Before disconnecting lines or fittings, be sure to release all pressure by operating the tractor control valves. Before applying pressure to the system, be sure all connections are tight and that hoses and connections are not damaged.

If injured by escaping fluid, obtain medical assistance at once. Serious infection or reaction can develop if medical treatment is not administered immediately.

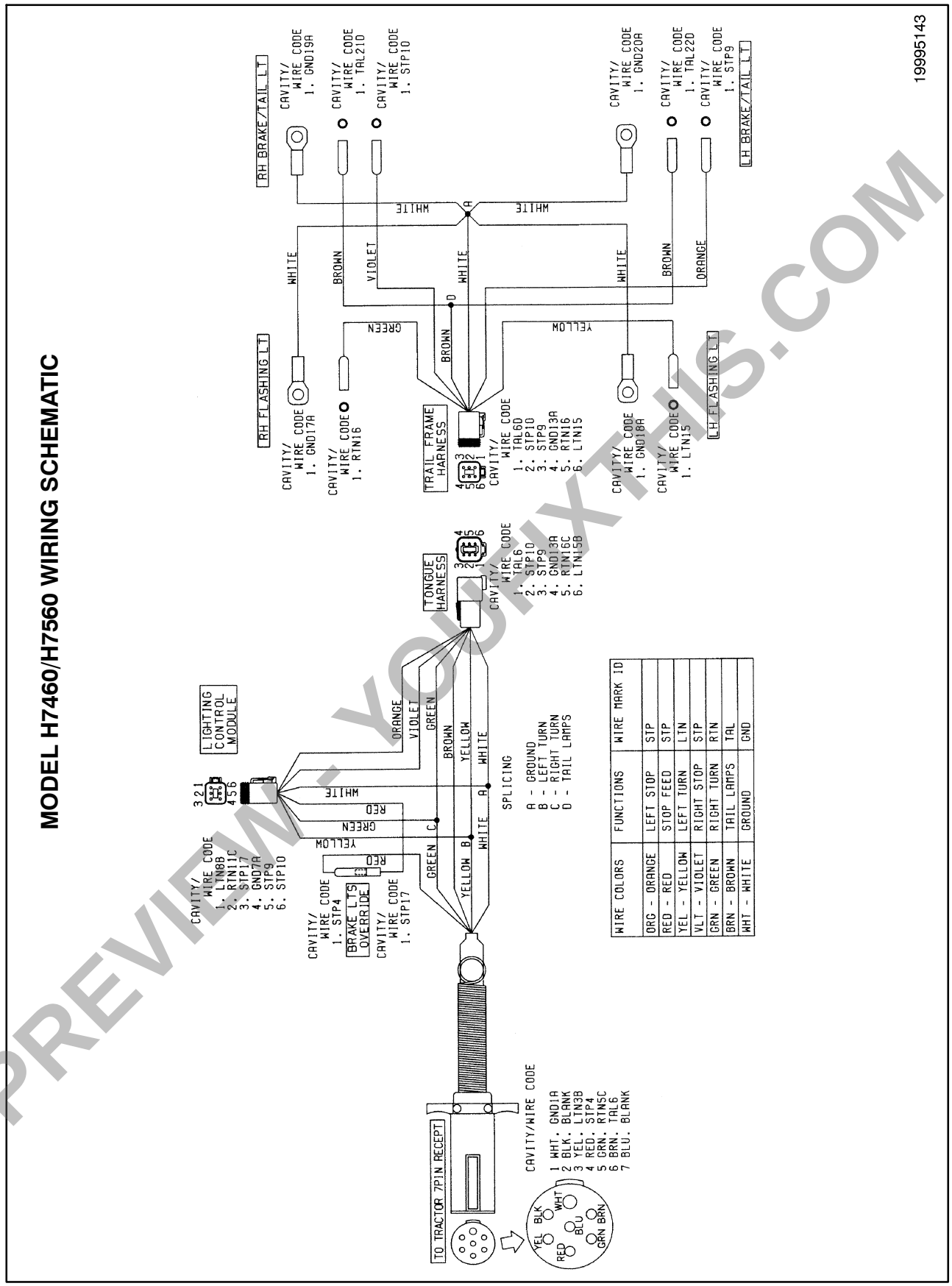
Failure to comply could result in death or serious injury.

M1184

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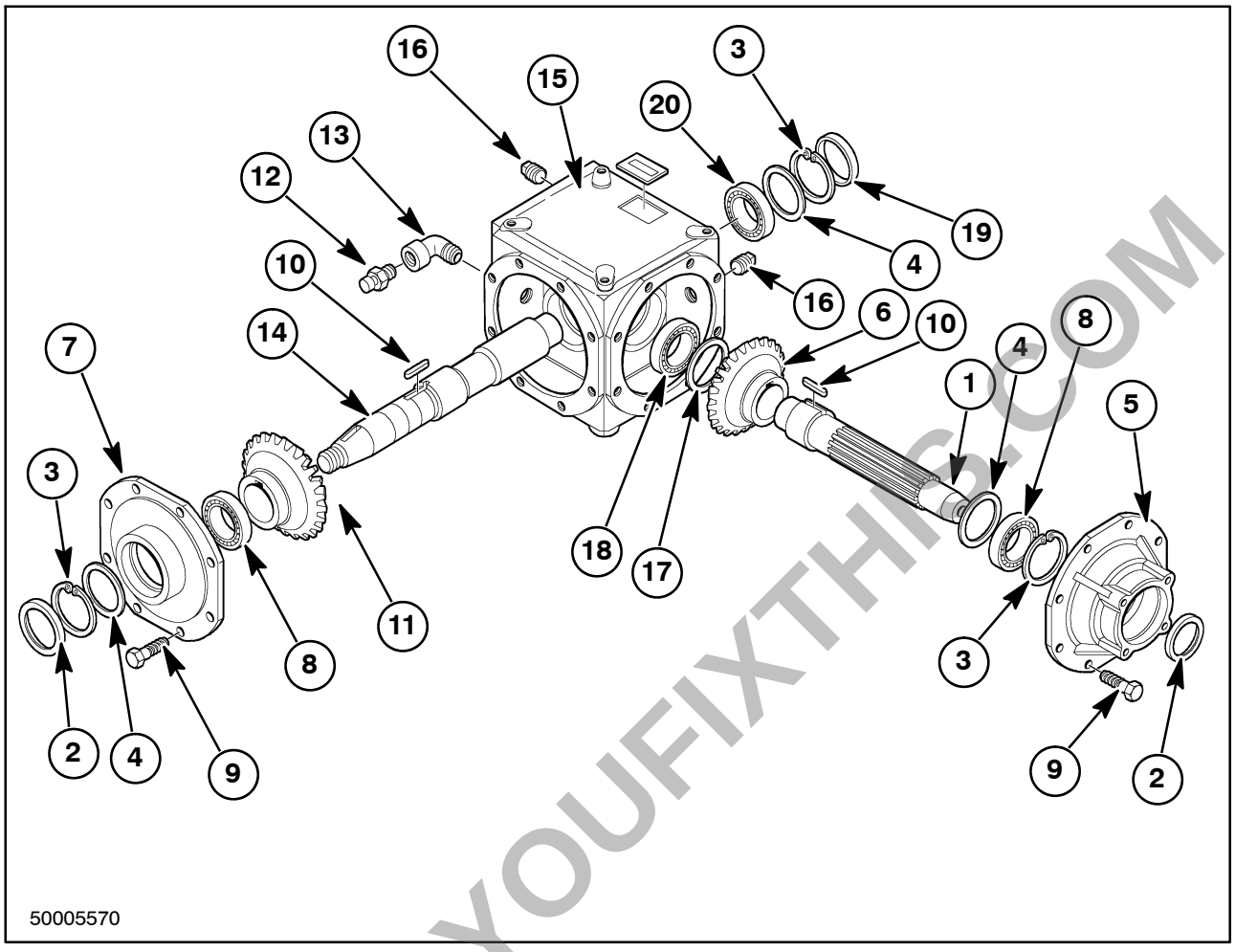
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MODEL H7460/H7560 WIRING SCHEMATIC



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Parts identification

1. Shaft
2. Seal
3. Snap Ring
4. Shim Kit
5. Cover
6. Crown Wheel
7. Cover
8. Bearing
9. Bolt
10. Key
11. Pinion
12. Breather
13. Elbow
14. Shaft
15. Casing
16. Plug
17. Shim Kit
18. Bearing
19. Cap
20. Bearing

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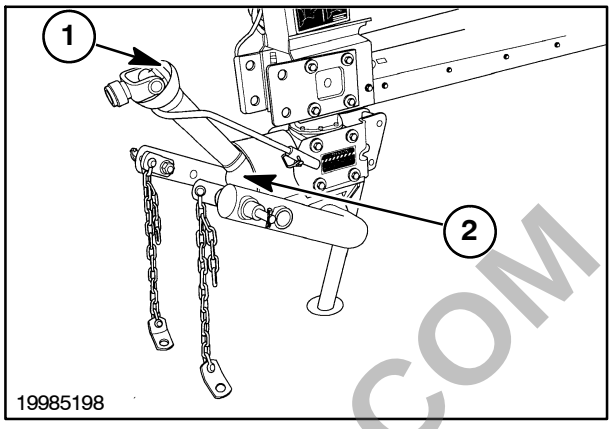
PRIMARY PTO

Front Half Removal

IMPORTANT: *The PTO shafts are very heavy and awkward; use caution not to drop the shaft assemblies as personal injury or damage to the components may result.*

1. To service the front half of the primary PTO, 1, pull the front half from the rear half, 2, of the primary PTO.

Refer to the Slide Lok, Driveline Guards, and U-joints sections in this manual to service the front half of the primary PTO.



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Front Half Installation

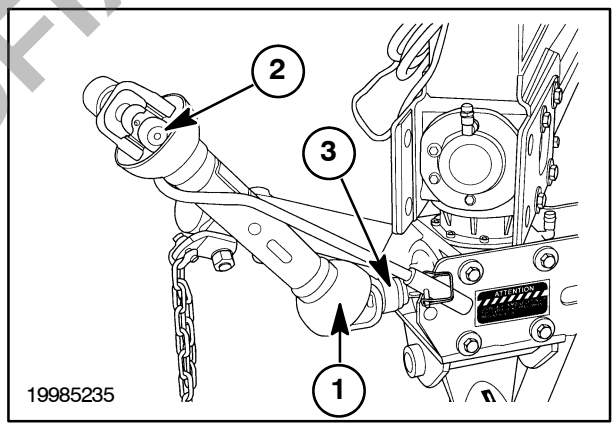
Align the female splines on the front half of the primary PTO with the male splines on the rear half of the primary PTO and slide the two shafts together.

NOTE: *Ensure the shields fit together properly and the two halves telescope freely.*

Rear Half Removal

IMPORTANT: *The PTO shafts are very heavy and awkward; use caution not to drop the shaft assemblies as personal injury or damage to the components may result.*

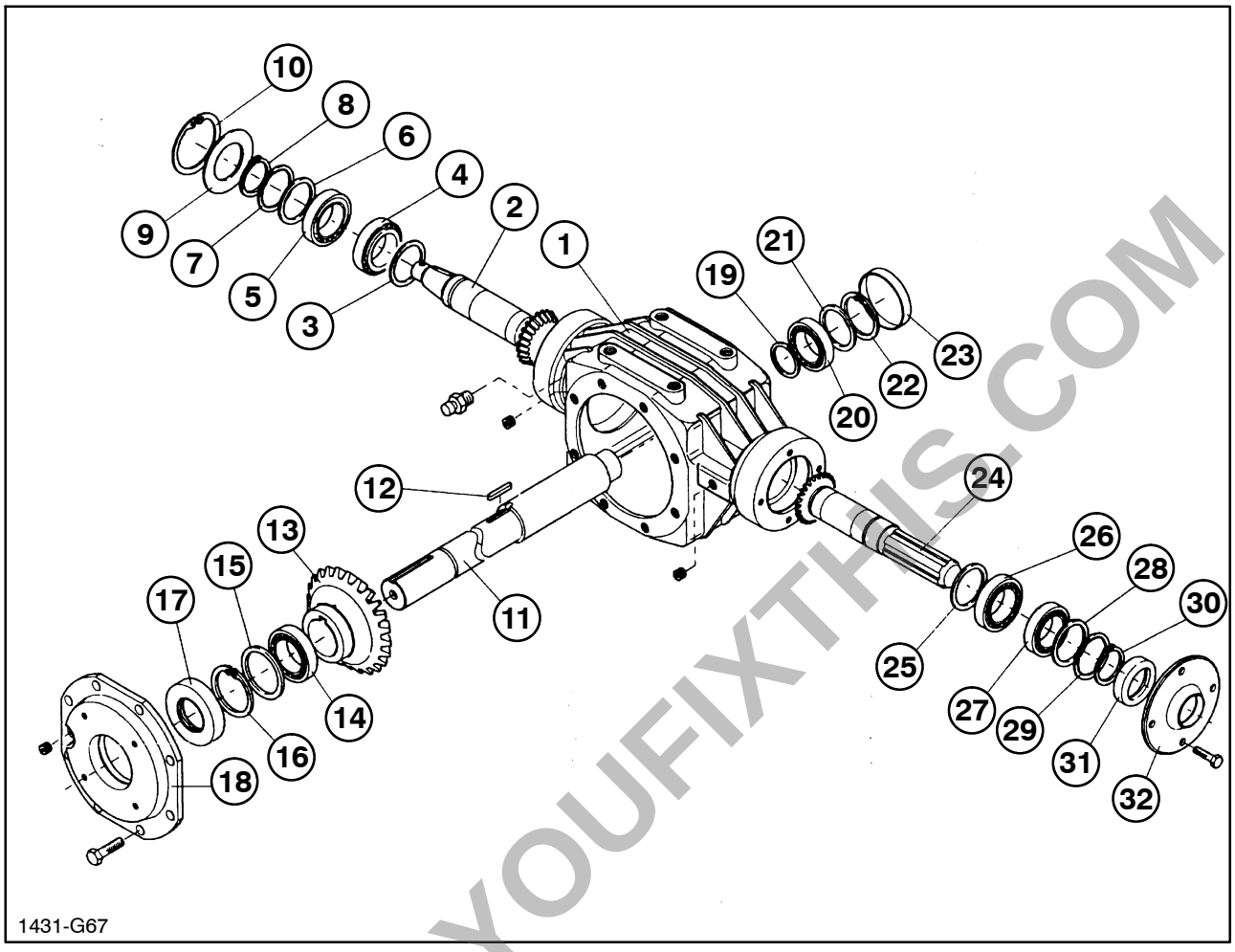
1. To service the rear half of the primary PTO, 1, pull the front half, 2, from the rear half of the primary PTO.
2. Remove the protective shielding by squeezing the sides together until they release from the retaining pins.
3. Pull back the slide lock, 3, and slide the primary PTO off the lower swivel gearbox.
4. Refer to the Slide Lok, Driveline Guards, and U-joints sections in this manual to service the rear half of the primary PTO.



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Parts Identification

1. Gearbox housing
2. Input shaft
3. Shim kit
4. Bearing cup and cone
5. Sealed ball bearing
6. Washer
7. Shim kit
8. Snap ring
9. Cover
10. Snap ring
11. Conditioner drive shaft
12. Key
13. Gear
14. Bearing cup and cone
15. Shim kit
16. Snap ring
17. Seal
18. Conditioner drive shaft bearing cap
19. Washer
20. Ball bearing (conditioner drive shaft)
21. Shim kit
22. Snap ring
23. Plug
24. Lower output shaft
25. Shim kit
26. Ball bearing
27. Ball bearing
28. Washer
29. Shim kit
30. Snap ring
31. Seal
32. Lower output shaft end cap

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LUBRICATION

Adequate lubrication and maintenance on a regular schedule is vital to maintaining your equipment. To ensure long service and efficient operation, follow the lubrication and maintenance schedules outlined in this manual. The use of proper fuels, oils, grease and filters, as well as keeping the systems clean, will also extend machine and component life.

IMPORTANT: *Always use genuine* ***New Holland*** *replacement parts, oils and filters to ensure proper operation, filtration of engine and hydraulic systems. See your* ***New Holland*** *dealer for additional oil quantities.*

RECOMMENDED LUBRICANTS AND COOLANTS

Lubricant	Type and Description	Part Number	Container Size
Engine Oil	AMBRA SUPER GOLD SSL ENGINE OIL SAE 10W-40	86994335	2.5G / 9.46L
	AMBRA SUPER GOLD HSP ENGINE OIL SAE 10W	86641050	5G / 18.93L
	AMBRA SUPER GOLD HSP ENGINE OIL SAE 10W-30	9613313	1QT / .946L
		86641052	1G / 3.785L
		9613314	2.5G / 9.46L
		9673508DS	5G / 18.93L
	AMBRA SUPER GOLD HSP ENGINE OIL SAE 30	9613286	1QT / .946L
		86641043	1G / 3.785L
		9613289	2.5G / 9.46L
		86641044	5G / 18.93L
	AMBRA SUPER GOLD HSP ENGINE OIL SAE 40	9624812DS	55G / 208.2L
	AMBRA SUPER GOLD HSP ENGINE OIL SAE 15W-40	86641081	1QT / .946L
		86641082	1G / 3.785L
		86641084	2.5G / 9.46L
		86641083	5G / 18.93L
	AMBRA SUPER GOLD HSP ENGINE OIL SAE 20W-50	86994337	5G / 18.93L
	AMBRA AUTO SUPREME SAE 5W-30	9673589DS	1QT / .946L
	AMBRA AUTO SUPREME SAE 10W-30	86641101	1QT / .946L
Transmission Oil	AMBRA MULTI TRAN	86639558	1G / 3.785L
		86639559	2.5G / 9.46L
		86639560	5G / 18.93L
	AMBRA MULTI TRAN SSL	86994339	2.5G / 9.46L
	AMBRA MULTI BIO S	86994341	2.5G / 9.46L
Hydraulic Oil	AMBRA MULTI G 134	9624655DS	1QT / .946L
		9624656DS	1G / 3.785L
		9624450	2.5G / 9.46L
		9624451	5G / 18.93L
	AMBRA HYDROSYSTEM 46 HYD FLUID	86109085	5G / 18.93L
	AMBRA HYDROSYSTEM 68 HYD FLUID	86994331	5G / 18.93L
	AMBRA HYDROSYSTEM 100 HYD FLUID	86994343	5G / 18.93L
ATF Oil	AMBRA HYDRODEX 3 ATF	9613304	1QT / .946L
		9613312	2.5G / 9.46L
Gear Oil	AMBRA HYPOIDE 90 GEAR LUBE	9613295	1QT / .946L
		9613294	2.5G / 9.46L
		86994348	16G / 60.6L
	AMBRA HYPOIDE 140 GEAR LUBE	87027134*	1QT / .946L
		87027135	2.5G / 9.46L
		86994351	16G / 60.6L
	AMBRA TRANSAXLE FLUID	86994352	5G / 18.93L
	AMBRA HYPOIDE SSL GEAR LUBE	86994354	1QT / .946L
Grease	AMBRA GR-9 MULTI-PURPOSE GREASE	9613310	TUBE - 14 OZ
	AMBRA HI-TEMP GREASE	9861804DS	TUBE - 14 OZ
	AMBRA CORN HEAD GREASE	94107DS	TUBE - 14 OZ
	AMBRA GR 75 MD GREASE	87400001	TUBE - 14 OZ
	AMBRA GR 1000 SYNTHETIC GREASE	86994355	TUBE - 14 OZ
	LIMITED SLIP ADDITIVE	B96606	
Brake Fluid	BRAKE LHM FLUID (Mineral Based Oil)	86541699DS	1QT / .946L
Coolant	ESE-M97B18-D, Ethylene Glycol Coolant Concentrate	FGCC2701DS	1G / 3.785L
	Propylene Glycol Concentrate	FGCC2711DS	1G / 3.785L

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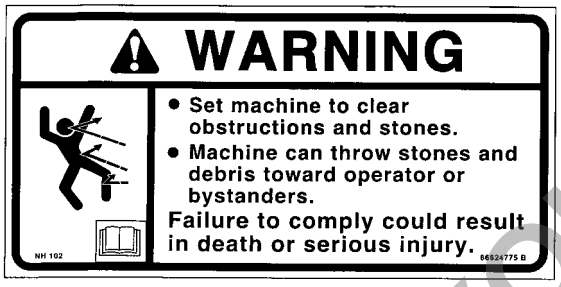
Part #86624774 (2)

2



Part #86611825 (3)

3



Part #86624775 (2)

4



Part #86622073

5

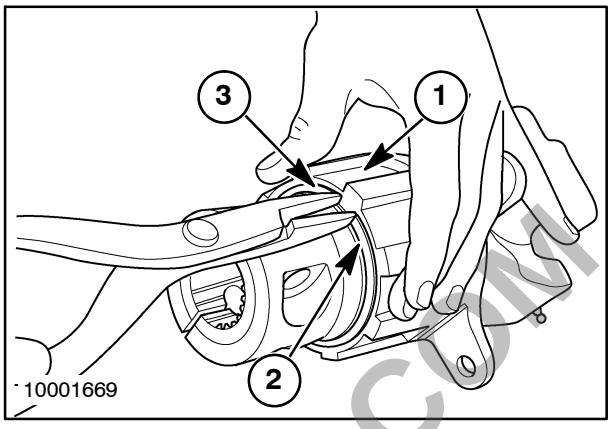


Part #86628571 (3)

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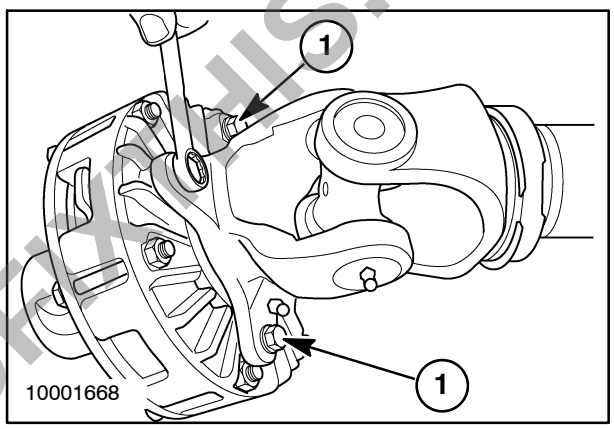
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9. Apply a film of grease to the keys and set each in place on top of the leaf springs.
10. Install the outer hub, 1, on the inner hub.
11. Install the washer, 2, and snap ring, 3.



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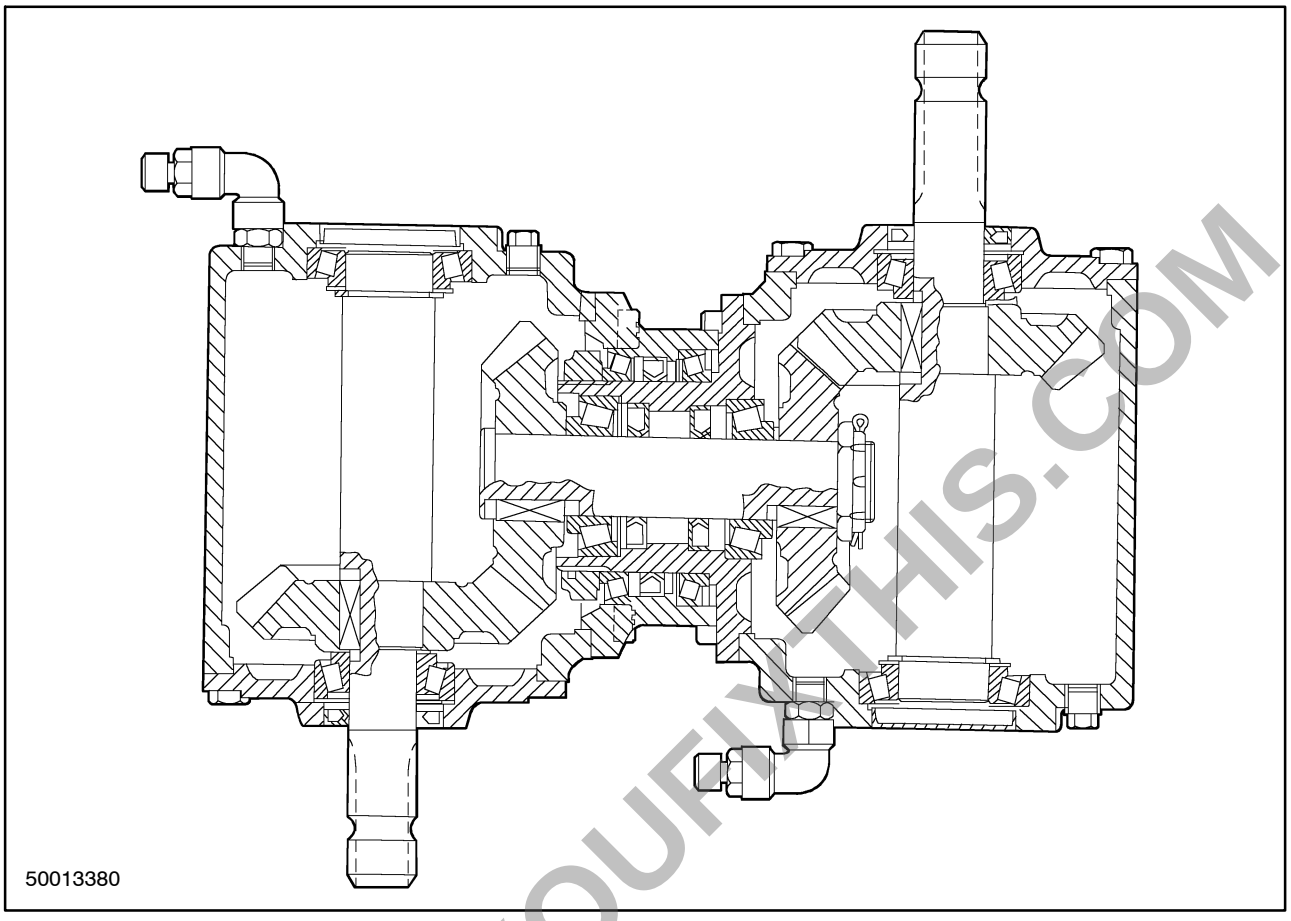
12. Install the overrunning clutch assembly into the slip clutch assembly.
13. Install the four 5/16 inch-18 x 1 inch cap screws, 1, holding the overrunning clutch to the slip clutch housing, tighten securely
14. Install the slip clutch on the unit a described earlier in this section.



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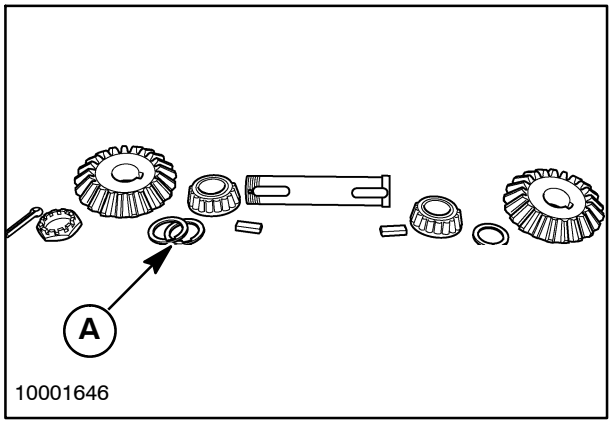


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24. Add shims at A, between the inner bearing and bevel gear.

NOTE: *The shims used are available in 0.012 inch, 0.016 inch, and 0.020 inch thicknesses. The shim pack thickness can be changed in 0.004 inch increments by removing a shim and installing the next size thicker shim to increase contact mesh.*

25. Assemble the neck assembly as described earlier in this section.
26. Repeat the addition or removal of the shims until the contact pattern reaches 40% central-toe.



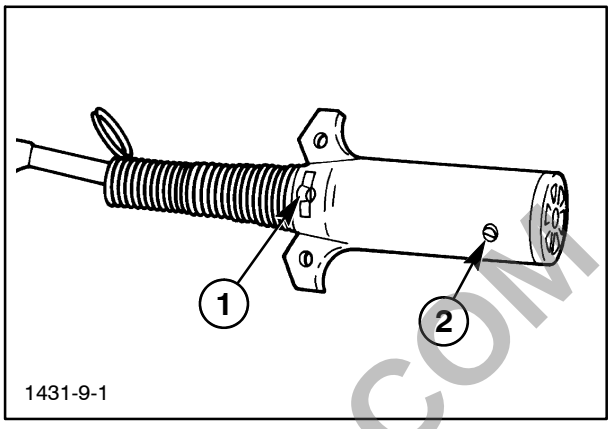
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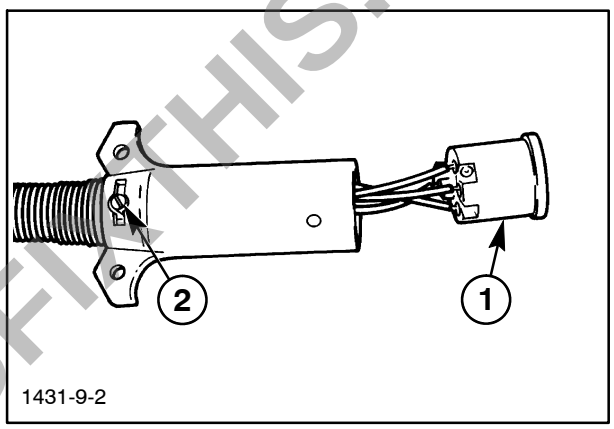
TRAILER CONNECTOR REPAIR

1. The trailer connector may be disassembled to service the electrical connections inside the connector. To disassemble the connector, loosen the clamping screw, 1, and remove the screw, 2.



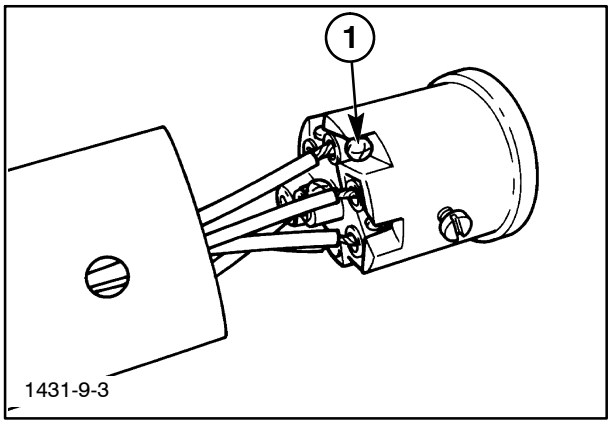
7

2. Grasp the end plug, 1, of the connector, and carefully pull it away from the body of the connector to expose the connections inside the connector. If the end plug does not pull easily away from the end of the connector, check the clamping screw, 2, to ensure it is loose enough, and push the clamping block away from the harness sheathing.



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3. The wires are held in the end plug by a clamp and screw, 1. To remove the wire from the end plug, loosen the screw, 1, until the wire can be slid out of the connector. To install a wire into the connector, ensure that the wire insulation is stripped off to expose approximately 1/4 inch of the wire. Insert the bare end of the wire fully into the connector, and tighten the screw securely to retain the wire.



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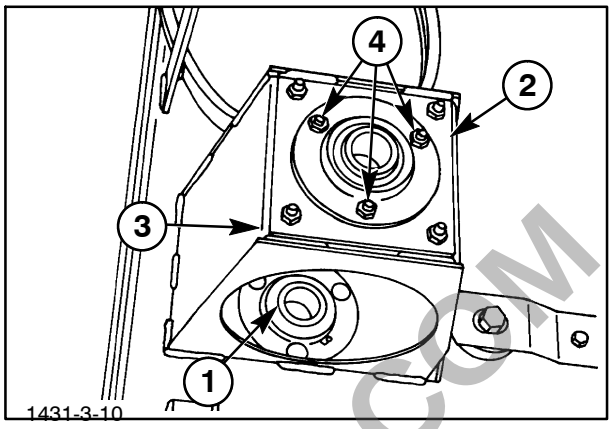
Assembly

1. Loosely install the upper and lower bearings in the header frame, as follows:

   Position the lower bearing in the flangettes with the locking flange of the bearing facing up, and the flangette with the grease zerk positioned on top. Place the bearing and flangette assembly, 1, in the header frame, and install three carriage bolts through the flangettes and header. Position the antiwrap shield, 1, Figure 8, over the carriage bolts under the header, and install the nuts snugly. Do not tighten the hardware, as it will allow the bearing to easily align when installing the shaft.

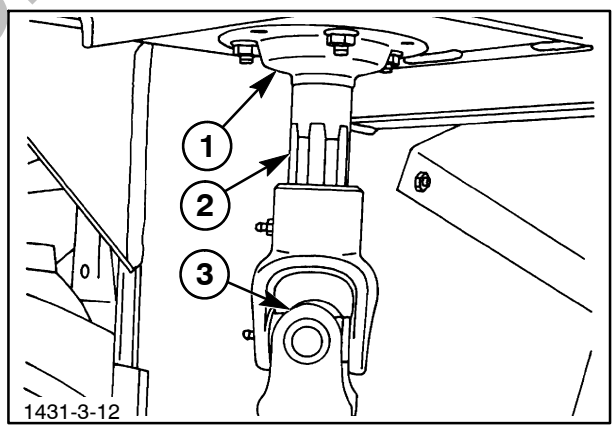
   Position the flangette with the grease zerk onto the mount plate, 2, so that the mounting holes align. Position the mount and flangette on the header frame so that the grease zerk faces the forward outside corner, 3, and it is accessible with the shielding installed. Install the mounting plate hardware snugly; do not tighten.

   Install the bearing with the locking flange facing upwards, position the remaining flangette and secure loosely with three flange bolts and nuts, 4.



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2. Insert the splined end of the shaft, 2, down through the top bearing, slide the locking collar for the lower bearing over the shaft, and continue sliding the shaft down through the lower bearing. Align the splines with the cutter bar drive shaft, and allow the shaft to drop down until it contacts the bearing cross, 3. Install the upper bearing lock collar over the shaft onto the bearing flange. Lift the shaft up until it is flush with inside of drive shaft yoke bore and seat the upper bearing lock collar snug enough to hold the shaft in place. This will provide a starting point for sheave alignment.



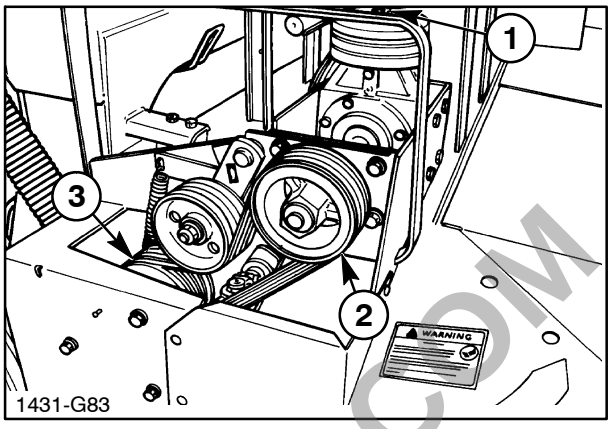
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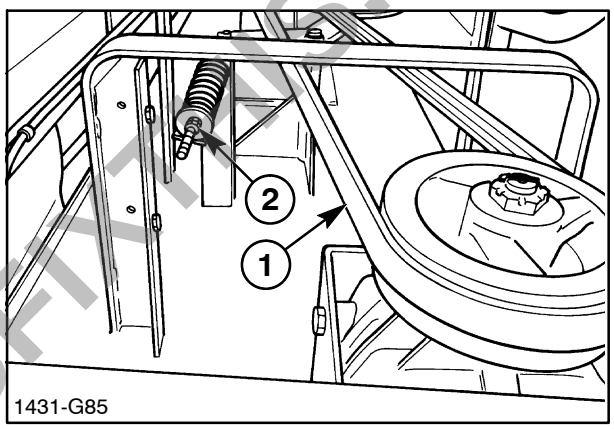
9. With the blocking still in place, torque the castellated nut, 1, retaining the drive sheave to 224 N·m (150 lb ft).

   Install the conditioner drive belt over the gearbox sheaves, and adjust the idler spring length to 279 mm (11 in). Check the alignment of the drive pulley, 2 and the driven pulley, 3. If the pulleys are not in alignment add or remove shim washers as needed behind the drive pulley, 2.



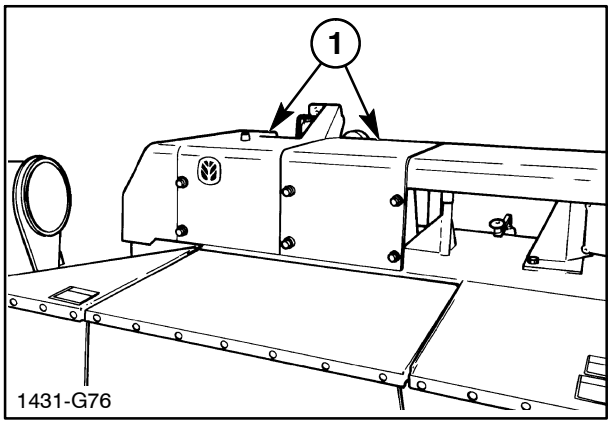
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10. Install the right side header drive belt, 1, on the drive sheave. Tighten the adjusting nut, 2, on the spring tension rod until the spring length matches the length of the gauge. Tighten the jam nut to secure.



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11. Reinstall the right side shielding, 1, on the unit; position the end and center shields under the right middle shield. Install all hardware loosely to ensure a proper fitup before tightening retaining bolts.



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