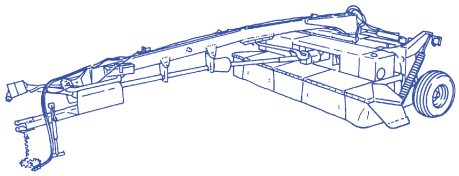

NEW HOLLAND
H7450
H7550

SERVICE MANUAL

NEW HOLLAND
AGRICULTURE
SERVICE

84207368 3/09
1st Printing

H7450, H7550
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 H7450 and H7550.

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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

CENTER-PULL DISC MOWER CONDITIONER

MODEL	H7450	H7550
Cutter Bar		
Cutting width	4.0 mm (13 ft 0 in)	4.0 mm (13 ft 0 in)
Cutting height	24 – 81 mm (0.95 – 3.2 in)	
Cutting height w/opt. high-stubble shoes	58 – 115 mm (2.25 – 4.5 in)	
Cutter bar tilt angle, degrees	2 – 10	
Type cutterbar	Modular	
Number of discs/Knives per disc	10/2	10/2
Disc speed @ rated PTO speed	3000 rpm	
Cutter bar shear protection	Std.– Frangible splines in disc drive hub	
Cutter bar flotation	Vertical and lateral, adjustable springs	
Conditioner		
Type	Chevron intermeshing molded rubber rolls	Flail Rotor w/100 tapered flails
Length	2591 mm (102 in)	2591 mm (102 in)
Diameter	264 mm (2 x 10.4 in) rolls	560 mm (1 x 22 in) flail rotor
Drive	4 HB v-belt & enclosed gears	4 HB v-belt
Speed, rpm	740	1011 std. or 726 opt.
Conditioning Roll Tension Adjustment	Single crank	NA
Conditioner gap adjustment	Drawbolt stop, each end	Single crank adjustment of rotor hood
Swath width	2.4 m (8 ft)	2.4 m (8 ft)
Windrow width	.9 – 2.4 m (3 – 8 ft)	.9 – 2.4 m (3 – 8 ft)
Driveline		
Input speed, rpm	1000	
Driveline protection	Slip Clutch and Overrunning Clutch Assembly @ rear of PTO shaft	
Tractor Requirements		
Minimum PTO power required	67 kW (90 Hp)	67 kW (90 Hp)
PTO shaft spline/size requirements	21-spline/1-3/8 inch	21-spline/1-3/8 inch
Hydraulic circuits required	2	
Minimum relief pressure required	103 bar (1500 psi)	
Electrical	7-pin electrical connector for transport lights	
Drawbar/3-pt Hitch	ASAE Cat. II or III drawbar or Cat. III 3-pt hitch	

MODEL	H7450	H7550
Tires		
Tubless Ag rib implement tires	31 x 13.5–15 8PR	
Transport Speed, Maximum, mph	20 (32)	
Dimensions and Weight		
Width, transport	4.0 m (13 ft 2 in)	
Width, operating	5.9 m 19 ft 5 in) w/std drawbar hitch; 6.5 m (21 ft 3 in) w/2-pt swivel hitch; 5.9 m (19 ft 7 in) w/drawbar swivel hitch	
Length, transport *	7.2 m (24 ft 7 in) w/std drawbar hitch; 8.1 m (26 ft 5 in) w/2-pt swivel hitch; 7.4 m (25 ft 5 in) w/drawbar swivel hitch	7.6 m (25 ft 1 in) w/std drawbar hitch; 8.2 m (26 ft 11 in) w/2-pt swivel hitch; 7.9 m (25 ft 11 in) w/drawbar swivel hitch
Length, operating *	5.8 m (20 ft 2 in) w/std. drawbar hitch; 6.7 m (22 in 1 ft) w/2-pt swivel hitch; 6.4 m (21 ft 1 in) w/drawbar swivel hitch	6.3 m (20 ft 8 in) w/std. drawbar hitch; 6.9 m (22 ft 7 in) w/2-pt swivel hitch; 6.6 m (21 ft 7 in) w/drawbar swivel hitch
Height, transport	2.0 m (6 ft 8 in)	
Height, operating	1.7 m (5 ft 8 in)	
Ground clearance w/header fully raised	457 mm (18 in)	
Weight, Shipping	w/Std. Tongue 2771 kg (6110 lb); w/2pt or dbr 2899 kg (6390 lb); w/steel (CIH) add 45 kg (100 lb)	w/Std. Tongue 2722 kg (6000 lb); w/2pt or dbr 2849 kg (6280 lb)
Weight, Operating	w/Std. Tongue 2631 kg (5800 lb); w/2pt or dbr 2758 kg (6080 lb); w/steel (CIH) add 45 kg (100 lb)	w/Std. Tongue 2576 kg (5680 lb); w/2pt or dbr 2703kg 5960 lb)
* Windrow shields fully open for length in both transport and operating positions. Flail curtain is down for all height and length measurements.		
Length with flail curtain up should be reduced by 152mm (6 in). Height with flail curtain up should be increased by 279mm (11 in).		

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.*

GENERAL INFORMATION

Regular lubrication is the best insurance against delays and repairs. Proper lubrication will extend machine life. Refer to the following charts for lubricants and service intervals.

IMPORTANT: *Failure to complete the required maintenance at the recommended intervals can cause unnecessary downtime.*

The intervals listed in the Lubrication Chart are guidelines to be used when operating in normal conditions. Adjust the intervals for operating in adverse environmental and working conditions. The intervals should be shortened for sandy, dusty and extremely hot operating conditions.

⚠ CAUTION ⚠

Observe the following safety precautions before performing any lubrication or maintenance:

- **Shut off engine.**
- **Disengage all drives.**
- **Engage park brake.**
- **Lower all attachments to the ground or raise and engage all safety locks.**
- **Close all shields that are opened and reinstall any shields removed for lubrication and maintenance purposes.**

Failure to comply may result in minor or moderate injury.

M1460

⚠ CAUTION ⚠

Some illustrations in this manual show shields opened or removed to display areas being serviced. Replace all shields before operating the machine. Failure to comply could result in death or serious injury.

M1213

Always clean the area around dipsticks, fill caps, and check plugs when checking fluid levels. Failure to clean these areas may allow contamination to enter the system. Drain, flush and refill the system anytime you suspect it is contaminated.

Grease Fittings

Wipe dirt from fittings before greasing.

Pump fresh grease into fitting to adequately lubricate the component and force out any contamination from the grease passage.

Wipe off excess grease.

Use a grease gun containing clean high grade of multipurpose grease.

Chains

Stop all drives before lubricating chains.

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

MINIMUM HARDWARE TIGHTENING TORQUES

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

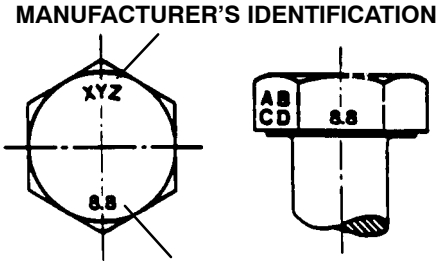
METRIC NON-FLANGED HARDWARE AND LOCKNUTS

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)

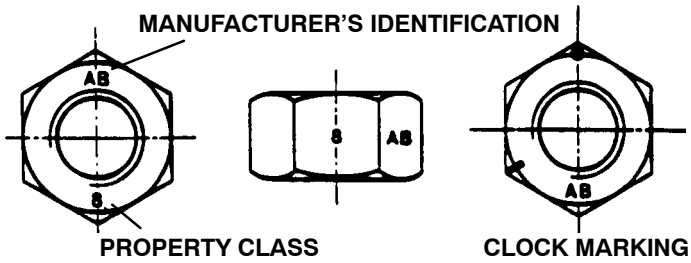
NOTE: Torque values shown with * are inch pounds.

IDENTIFICATION

HEX CAP SCREW AND CARRIAGE BOLTS CLASSES 5.6 AND UP



HEX NUTS AND LOCKNUTS CLASSES 05 AND UP



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MINIMUM HARDWARE TIGHTENING TORQUES

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

INCH NON-FLANGED 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	6.2 (55)*	8.1 (72)*	9.7 (86)*	13 (112)*	14 (121)*	18 (157)*	8.5 (75)*	12.2 (109)*	1/4
5/16	13 (115)*	17 (149)*	20 (178)*	26 (229)*	28 (250)*	37 (324)*	17.5 (155)*	25 (220)*	5/16
3/8	23 (17)	30 (22)	35 (26)	46 (34)	50 (37)	65 (48)	31 (23)	44 (33)	3/8
7/16	37 (27)	47 (35)	57 (42)	73 (54)	80 (59)	104 (77)	50 (37)	71 (53)	7/16
1/2	57 (42)	73 (54)	87 (64)	113 (83)	123 (91)	159 (117)	76 (56)	108 (80)	1/2
9/16	81 (60)	104 (77)	125 (92)	163 (120)	176 (130)	229 (169)	111 (82)	156 (115)	9/16
5/8	112 (83)	145 (107)	174 (128)	224 (165)	244 (180)	316 (233)	153 (113)	215 (159)	5/8
3/4	198 (146)	256 (189)	306 (226)	397 (293)	432 (319)	560 (413)	271 (200)	383 (282)	3/4
7/8	193 (142)	248 (183)	495 (365)	641 (473)	698 (515)	904 (667)	437 (323)	617 (455)	7/8
1	289 (213)	373 (275)	742 (547)	960 (708)	1048 (773)	1356 (1000)	654 (483)	924 (681)	1

NOTE: Torque values shown with * are inch pounds.

IDENTIFICATION
CAP SCREWS AND CARRIAGE BOLTS

SAE GRADE 2

SAE GRADE 5

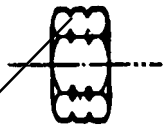
SAE GRADE 8

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 A NO MARK
GRADE B LETTER B
GRADE C LETTER C

GRADE IDENTIFICATION

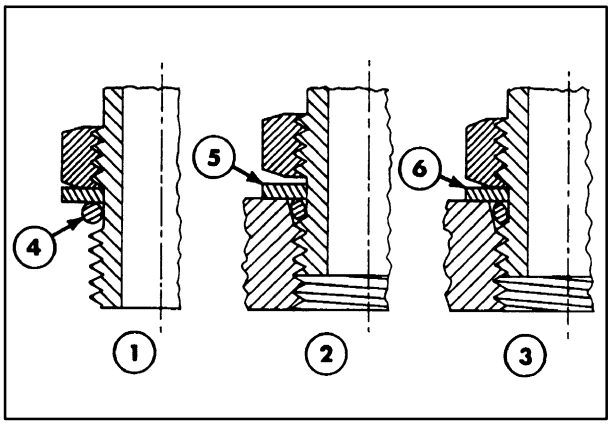
86529681 REV F 5.2

INSTALLATION OF ADJUSTABLE FITTINGS IN STRAIGHT THREAD O-RING BOSSES

1. Lubricate the O-ring by coating it with a light oil or petroleum. Install the O-ring in the groove adjacent to the metal backup washer which is assembled at the extreme end of the groove, 4.
2. Install the fitting into the SAE straight thread boss until the metal backup washer contacts the face of the boss, 5.

NOTE: *Do not over tighten and distort the metal backup washer.*

3. Position the fitting by turning out (counter-clockwise) up to a maximum of one turn. Holding the pad of the fitting with a wrench, tighten the locknut and washer against the face of the boss, 6.



1

STANDARD TORQUE DATA FOR HYDRAULIC TUBES AND FITTINGS

TUBE NUTS FOR 37° FLARED FITTINGS								O-RING BOSS PLUGS ADJUSTABLE FITTING LOCKNUTS, SWIVEL JIC - 37° SEATS			
				TORQUE				TORQUE			
SIZE	TUBING OD		THREAD SIZE	POUND FOOT		NEWTON METERS		POUND FOOT		NEWTON METERS	
	In.	mm		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
4	1/4	6.4	7/16-20	9	12	12	16	6	10	8	14
5	5/16	7.9	1/2-20	12	15	16	20	10	15	14	20
6	3/8	9.5	9/16-18	21	24	29	33	15	20	20	27
8	1/2	12.7	3/4-18	35	40	47	54	25	30	34	41
10	5/8	15.9	7/8-14	53	53	72	79	35	40	47	54
12	3/4	19.1	1-1/16-12	77	82	104	111	60	70	81	95
14	7/8	22.2	1-3/16-12	90	100	122	136	70	80	95	109
16	1	25.4	1-5/16-12	110	120	149	163	80	90	108	122
20	1-1/4	31.8	1-5/8-12	140	150	190	204	95	115	129	158
24	1-1/2	38.1	1-7/8-12	160	175	217	237	120	140	163	190
32	2	50.8	2-1/2-12	225	240	305	325	250	300	339	407

These torques are not recommended for tubes of 1/2 inch (12.7 mm) OD and larger with wall thickness of 0.035 inch (0.889 mm) or less. The torque is specified for 0.035 inch (0.889 mm) wall tubes on each application individually.

Before installing and torquing 37° flared fittings, clean the face of the flare and threads with a clean solvent or Loctite cleaner and apply hydraulic sealant Loctite™ no. 569 to the 37° flare and the threads.

Install fitting and torque to specified torque, loosen fitting and retorque to specifications.

PIPE THREAD FITTING TORQUE

Before installing and tightening pipe fittings, clean the threads with a clean solvent or Loctite cleaner and apply sealant Loctite no. 567 for all fittings including stainless steel or no. 565 for most metal fittings. For high filtration/zero contamination systems use no. 545.

Thread Size	Torque (Maximum)
1/8 inch – 27	13 N·m (10 lb ft)
1/4 inch – 18	16 N·m (12 lb ft)
3/8 inch – 14	22 N·m (16 lb ft)
1/2 inch – 14	41 N·m (30 lb ft)
3/4 inch – 14	54 N·m (40 lb ft)

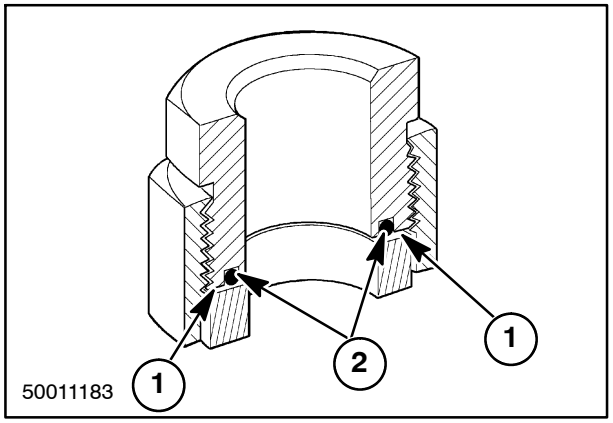
INSTALLATION OF ORFS (O-RING FLAT FACED) FITTINGS

When installing ORFS fittings thoroughly clean both flat surfaces of the fittings, 1, and lubricate the O-ring, 2, with light oil. Make sure both surfaces are aligned properly. Torque the fitting to specified torque listed throughout the service manual.

IMPORTANT: *If the fitting surfaces are not properly cleaned, the O-ring will not seal properly. If the fitting surfaces are not properly aligned, the fittings may be damaged and will not seal properly.*

IMPORTANT: *Always use genuine New Holland replacement oils and filters to ensure proper lubrication and filtration of engine and hydraulic system oils.*

The use of proper oils, grease, and keeping the hydraulic system clean will extend machine and component life.



2

SECTION 31 - IMPLEMENT POWER TAKE OFF (PTO)

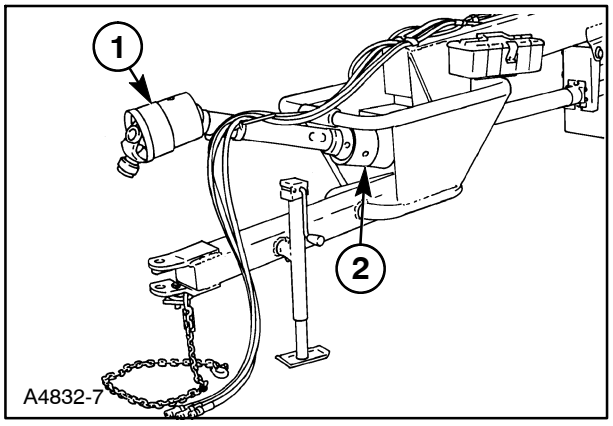
Chapter 1 - Drive Lines (Standard Tongue)

CONTENTS

H7450/H7550 STANDARD TONGUE

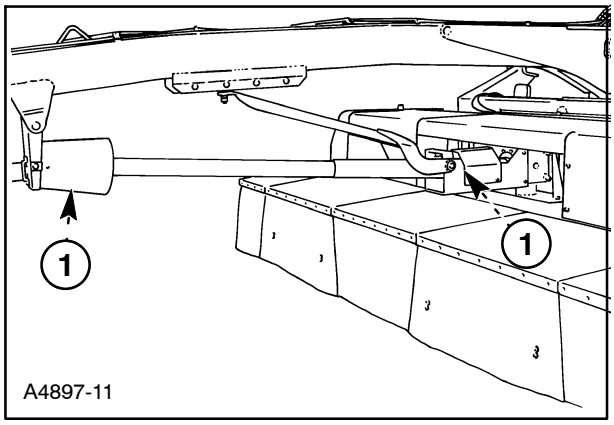
INTRODUCTION

The H7450/H7550 disc mower-conditioners utilize constant velocity U-joint drivelines for smooth operation, and to provide the ability to swing the tongue during PTO operation. The primary PTO shaft is equipped with an 80° CV U-joint, 1, at the tractor end, and a 50° CV U-joint, 2, at the mower end of the shaft. The primary PTO shaft attaches to the front of the tongue jackshaft; the tongue jackshaft then transfers power back to a point midway along the tongue.



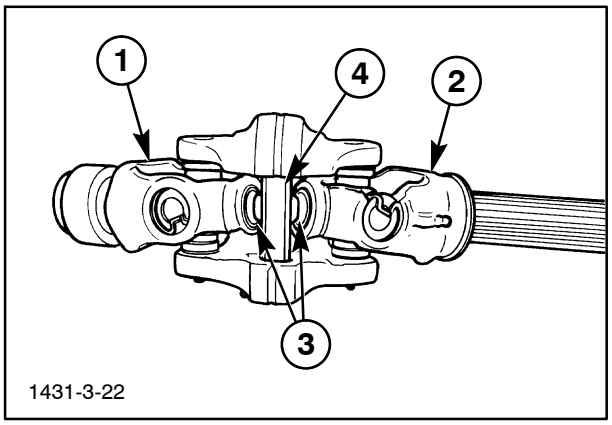
1

The secondary PTO shaft attaches to the rear of the tongue jackshaft and uses conventional U-joints, 1, at both ends of the shaft. The H7450 and H7550 are available as a 1000 RPM PTO units only.



2

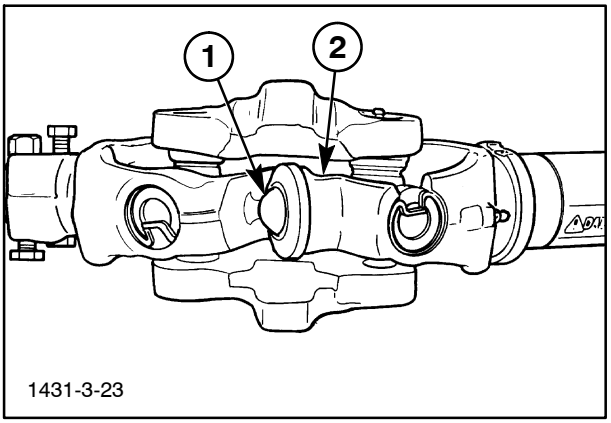
A CV joint consists of a double U-joint assembly, with both the front, 1, and rear, 2, yokes connected together with a mechanical connection; this ensures that both the front U-joint and the rear U-joint in the assembly are operating at the same angles. By operating at equal angles, the CV joint provides a constant velocity output (hence the name, CV joint) at all operating angles, and eliminates the vibration that can result when turning sharp in the field.



3

The CV joint degree rating indicates the maximum allowable operating angle of the CV U-joint; operation at angles exceeding that value will result in CV joint failure. The 80° CV joint consists of a front and rear joint, which have a spherical ball joint, 3, in the strap of the yokes. The center housing of the joint assembly contains a floating intermediate plate, 4, with a pin protruding from the center of each side. With the CV joint assembled, the spherical ball joint, 3, on the yokes fit over the pin on the intermediate plate, 4. As one yoke moves, it shifts the intermediate plate, and the opposite yoke as well, to maintain the same operating angles of both U-joints. The maximum operating angle occurs when the intermediate plate pin contacts the edge of the center housing opening.

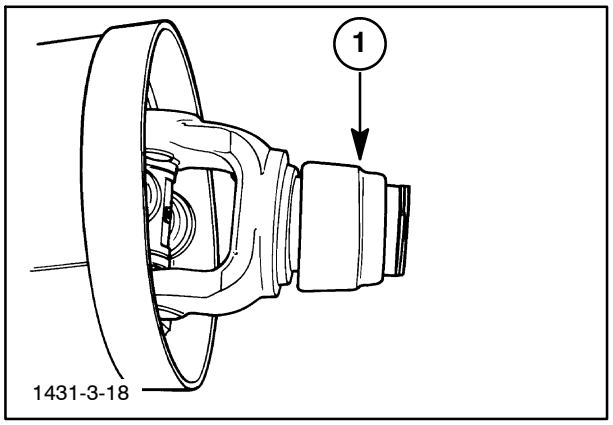
The 50° CV joint differs in that there is no intermediate plate; the one yoke has a ball, 1, on the strap of the yoke, while the opposing yoke has a socket, 2; when the joint is assembled, the ball on the one yoke is engaged in the socket of the other; in this way, the two joints are connected, and one yoke moves the other to maintain equal angles. While the 50° CV joint has fewer parts to wear, the maximum operating angle is less, as the yokes will contact the center housing sooner.



4

AUTO-LOK SLIDE LOCK

The H7450 and H7550 are equipped with an Auto-Lok slide lock, 1, which automatically latches in the rearward position when pulled back. The primary PTO shaft may then be held with both hands to guide it onto the tractor shaft; as the yoke slides onto the tractor shaft, the slide lock collar springs forward to latch the PTO shaft to the tractor shaft.



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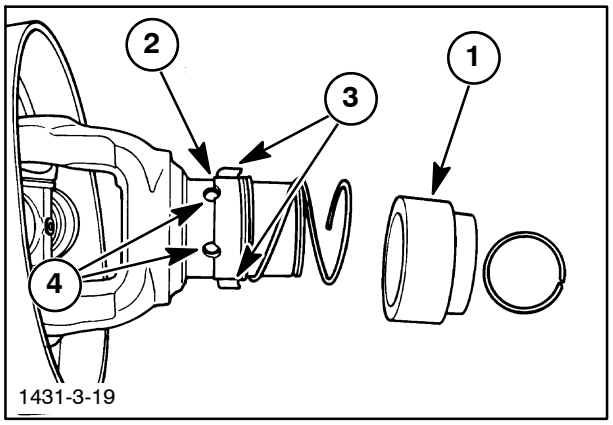
The Auto-Lok slide lock works as follows; as the collar is slid rearward, it tends to twist or cock slightly sideways, allowing a shoulder in the collar, 1, to catch on a ridge on the yoke, 2. As the yoke is slid onto the tractor shaft, and the pawls, 3, line up with the groove on the tractor shaft, four balls, 4, in the yoke are pushed outward by the end of the shaft. These four balls center the collar, causing the shoulder to disengage from the ridge, and the collar springs forward to lock the pawls in the tractor PTO shaft groove.



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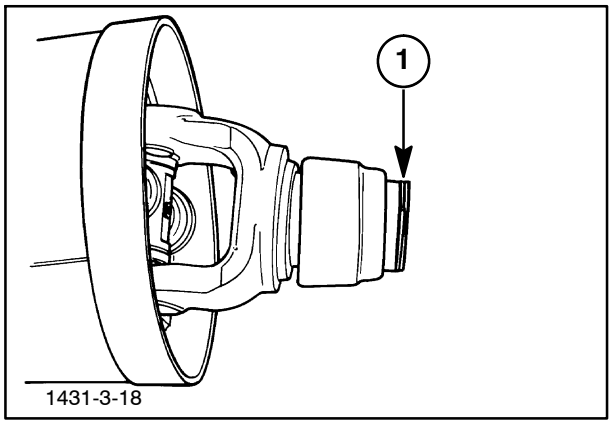
Disassembly

1. Pull the slide lock collar rearward until it latches in place. Use a screwdriver or spring pick to remove the retaining ring, 1, from the end of the yoke.



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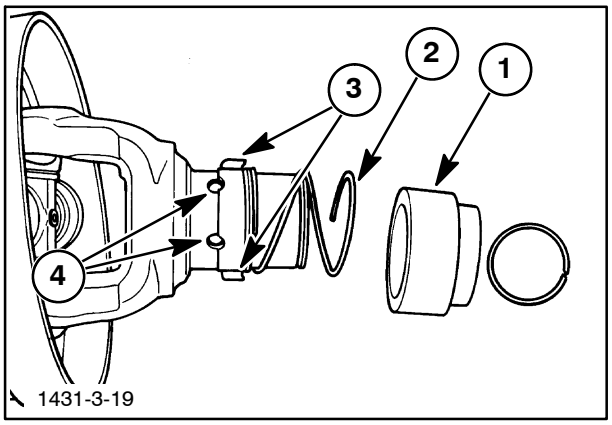
2. Slide the collar, 1, off the yoke, and remove the spring, 2, from the yoke barrel.

NOTE: *The spring is an interference fit, and will have to be worked off the yoke barrel.*

3. Remove the pawls, 3, by reaching into the yoke bore and pushing the pawls outwards, so that they can be grabbed and removed. Remove the four centering balls, 4, from the yoke using the same process.



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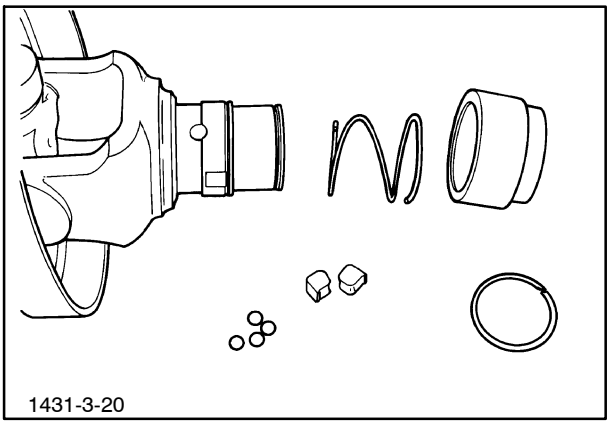
4. Thoroughly clean all slide lock components. Clean the yoke bore and pawl holes. Replace the yoke if damage or excessive wear is found.



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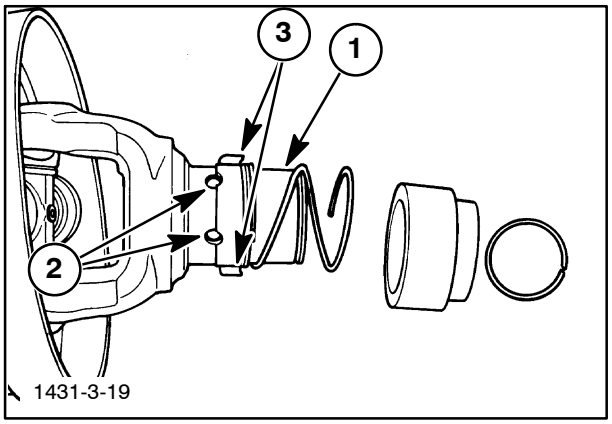
Assembly

1. Coat the outer surface of the yoke barrel, 1, with grease; push grease into the centering ball bores and the pawl holes in the yoke. Apply grease to the four centering balls, 2, and insert them into their bores; the grease will hold them in place.

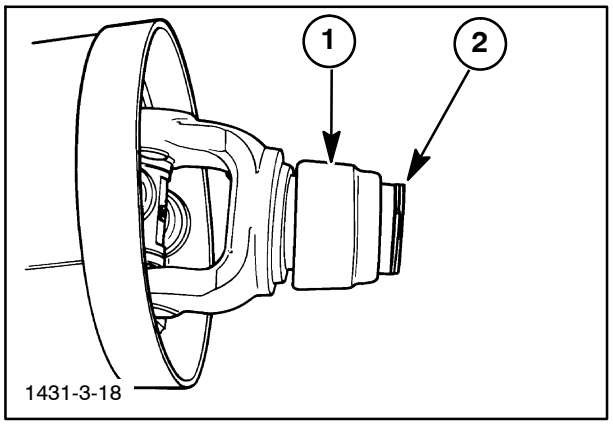
   Apply grease to the sides of the pawls, 3, and insert them into the square holes, positioning them so that the lip of the pawl faces into the groove in the yoke barrel. The pawls must slide freely up and down, and must be flush with the top of the yoke barrel.
2. Push a new spring over the yoke barrel up to the shoulder.

NOTE: *One end of the spring has a smaller diameter than the other. Be sure the small diameter of spring is up against the shoulder on the yoke barrel.*



10

3. Fill the inside of the collar cavity with grease. Slide the collar, 1, over the yoke barrel, ensuring the large diameter end of the spring stays inside the collar against the front lip. Pull the collar rearward past the retaining ring groove until it latches in place. Install the retaining ring, 2, in the groove. Grab the collar and manually center it on the yoke so that it springs forward; the collar must slide freely and the pawls must move up and down after assembly.



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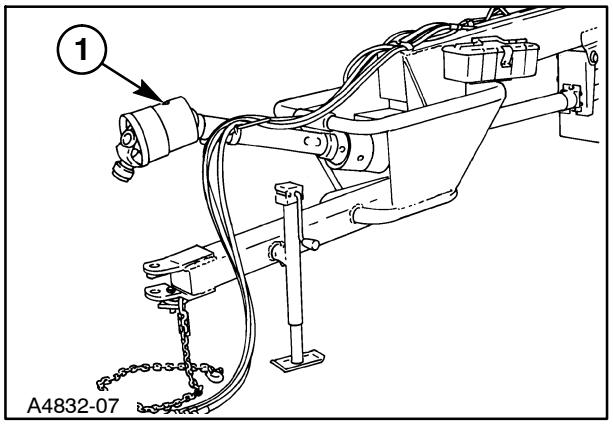
DRIVE SHAFT REMOVAL AND INSTALLATION

The front half of the primary PTO shaft, 1, may be serviced by sliding it off of the rear half of the primary PTO shaft; use caution to prevent the rear half of the primary PTO shaft from dropping onto the tongue, as damage to the shielding may result. To reinstall the front half of the primary PTO shaft, align the blank female spline on the front half-shaft with the two crimped male splines on the rear half-shaft, and slide the two shafts together. Ensure that the shields fit together properly, and the two half-shafts telescope freely.



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The rear half of the primary PTO shaft, and the secondary drive shaft must be removed from the machine in order to repair the U-joints or guards. The drive shafts are retained using one clamp bolt (front of the secondary shaft) or two clamp bolts and a center retaining bolt (rear of primary shaft and secondary shaft/slip clutch).