

Product: New Holland 2353 Forage Headers Service Repair Manual
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NEW HOLLAND 2353

REPAIR MANUAL



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2353

REPAIR MANUAL

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The sections used through out all New Holland product Repair manuals may not be used for each product. Each Repair manual will be made up of one or several books.

The sections listed above are the sections utilized for the 2353 Disc Header.

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FOREWORD

Appropriate service methods and correct repair procedures are essential for the safe, reliable operation of all equipment, as well as the personal safety of the individual performing the repair.

This Repair Manual provides troubleshooting and overhaul instructions using recommended procedures and equipment. Following these instructions will ensure the safe, efficient, and timely completion of the service or repair.

The manual is divided into sections which are subdivided into chapters. Each chapter contains information on general operating principals, detailed inspection, overhaul and, where applicable, specific troubleshooting, special tools, and specifications.

Any reference in this manual to right, left, rear, front, top, or bottom is determined by standing behind the machine and looking in the direction of travel.

All data and illustrations in this manual are subject to variations in build specification. This information was correct at the time of issue, but New Holland policy is one of continuous improvement, and the right to change specifications, equipment, or design at any time, without notice, is reserved.

PRECAUTIONARY STATEMENTS

PERSONAL SAFETY

Throughout this manual and on machine decals, you will find precautionary statements (“**DANGER**”, “**WARNING**”, and “**CAUTION**”) 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.



DANGER



This word “**DANGER**” indicates an immediate hazardous situation that, if not avoided, will result in death or serious injury. The color associated with Danger is RED.



WARNING



This word “**WARNING**” indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. The color associated with Warning is ORANGE.



CAUTION



This word “**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. The color associated with Caution is YELLOW.

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

MACHINE SAFETY

The precautionary statement (“**IMPORTANT**”) is followed by specific instructions. This statement is intended for machine safety.

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.*

INFORMATION

NOTE: *Instructions used to identify and present supplementary information.*

SAFETY

PRECAUTIONARY STATEMENTS

A careful operator is the best operator. Most accidents can be avoided by observing certain precautions. To help prevent accidents, read the following precautions before operating this equipment. Equipment should be operated only by those who are responsible and instructed to do so.

Carefully review the procedures given in this manual with all operators. It is important that all operators be familiar with and follow safety precautions.

1. **Do not operate the disc header without all the cutter bar shields down, cover skirts installed and in good condition, and cover skirts snapped together. Immediately replace any skirt that is torn or has a hole in it.**
2. **Header locks are built into the header lift system to lock the header in the raised position. Lock the header on both sides before working under a raised header.**
3. **Use the amber flashing safety lights and road lights when driving the self-propelled windrower and header on the highway. Be sure to use the road lights, not the work lights, because the rear work lights could be mistaken for the headlights of an oncoming vehicle.**
4. **Instruct inexperienced operators to read the operator's manual, safety signs, and become familiar with the handling of the unit which the disc header is attached. Operate the unit in uncongested areas where there is no likelihood of personal injury or property damage.**
5. **Never make any adjustments or attempt to work on the unit with the engine running. Disengage the header drive, lower the header to the ground, or lock it in the transport position, shut off the engine, and engage the parking brake before attempting any adjustments or trying to work on the header.**
6. **Tilt the cutter bar back in fields where stones and foreign objects are present, to raise the cutting knives, minimize debris deflected from the knives and reduce knife damage.**
7. **Do not attempt to remove material from the disc header while it is in operation. Shut the windrower off and allow the rotating discs to stop before leaving the windrower cab. Rotating elements may cause serious bodily injury.**
8. **Always operate the disc header with the covers and shields in place. Do not lean against or stand on the covers or shields.**
9. **Do not attempt to adjust the lift linkage with a header attached. Header will drop suddenly if clevis pin is driven out, causing header damage and/or personal injury.**
10. **Observe the following precautions before adjusting or lubricating the header.**
 - **Disengage the header drive.**
 - **Lower the header to the ground, or raise the header and engage the header locks.**
 - **Stop the engine and engage the parking brake before leaving the cab.**
 - **Reinstall and close all shielding before operating the unit.**
11. **Do not attempt to clean, lubricate, or adjust the machine while it is running.**
12. **Replace damaged knives, knife hardware or discs immediately to prevent an accident.**
13. **The bottom leading edge of worn discs can become very sharp. Wear gloves to prevent injury.**
14. **Do not weld on wheels. Welding on wheels may cause high stress and a wheel failure.**
15. **Do not weld on wheels with a mounted tire. Welding on wheels with a mounted tire may cause the tire to burst, causing serious injury or death.**

INTRODUCTION

The 2353 disc header is a disc mower-conditioner designed to be used with the HW340 (with modification to the tractor and header), HW345 and HW365 self-propelled windrower. The two operate together as an integral unit. The valves and cylinders for lifting and tilting the header are mounted on the windrower, as are all the hydraulic controls. The flotation springs or hydraulic lift cylinders are also mounted on the windrower.

The header contains 10 disc mowing modules. A hydraulic pump on the windrower supplies all power for the header.

The windrower controls the speed of the header in either automatic or manual mode. In the automatic mode, the speed is held constant regardless of the speed of the windrower. In the manual mode, the speed varies with the windrower engine speed. The mode is set from the windrower cab.

NOTE: *On this equipment, left and right are determined by standing behind the unit, looking in the direction of travel.*

THEORY OF OPERATION

ROLL CONDITIONING

Roll conditioning passes the cut crop through a set of closely spaced intermeshing rolls with matching lands and valleys. The rolls crush and crack the plant stem at several points along its length, which wears away the waxy coating and allows moisture to escape.

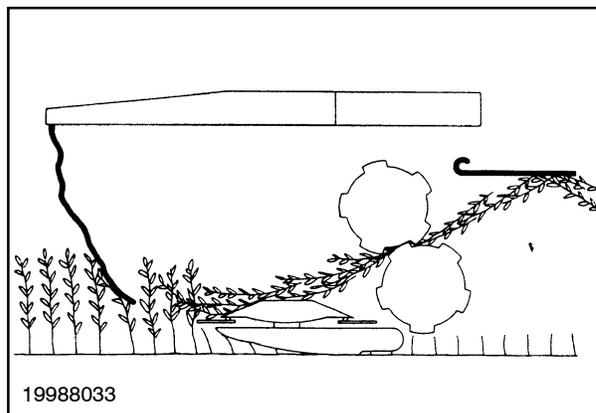
There are two rolls in roll conditioning.

The lower roll is fixed in the machine.

The upper roll can pivot to let the crop mat feed through the rolls without plugging.

Roll gap and roll tension affect crop conditioning.

See below for more information.

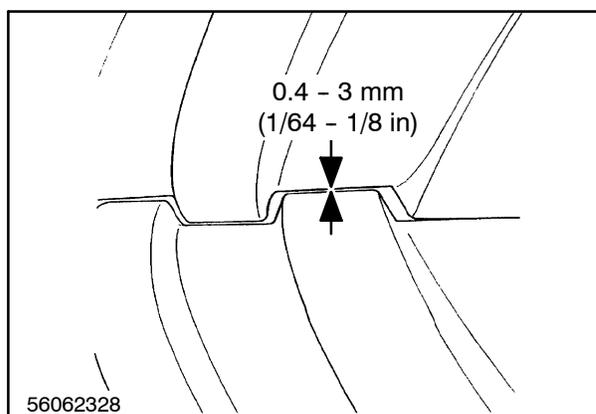


1

Roll Gap

The roll gap is the space between the land of one roll and valley of the opposite conditioning roll. This space should be kept between 0.4 mm – 3 mm (1/64 in. – 1/8 in.) to provide the best performance.

To check the roll gap easily and quickly in the field, use the “one stem method”. Take one stem of the crop being cut and pass it between the rolls at three or four points across the roll width. The stem should move between the rolls, but with some resistance. If the stem passes through the gap with little or no resistance, the gap should be reset closer. If you cannot pass the stem between the rolls at all, the gap should be increased slightly. To get peak machine performance and efficiency, check the roll gap before each cutting during the season, and also when cutting different forage crops because each crop will be different.



2

In high volume crops like Sudan grass and other cane-type crops, increase the roll gap slightly to get better crop flow through the rolls without sacrificing good crop conditioning. The lands and valleys should be centered to maintain a uniform distance on all sides of the lands.

Roll Tension

After setting the roll gap, adjust the roll tension. Roll tension is the amount of pressure added to restrict upper roll movement as the crop feeds through the rolls. Hard-to-condition crops require more tension. Light and easily-conditioned crops require less tension. Higher roll tensions increase the pressure exerted on the crop mat as it moves between the lands and valleys, increasing the ability of the rolls to crack and wear the stem away. Higher roll tensions result in more aggressive crop conditioning because the rolls become more resistant to spreading apart as the crop is fed through.

Torsion Bar Tensioning System

The torsion bar tensioning system maintains uniform pressure throughout the range of roll movement as the crop mat passes through, providing better control and reducing potential crop plugging. In most conditions, a good starting point for tension on intermeshing rolls is to increase the roll tension by turning the adjusting crank 8 full turns after you start to feel resistance on the crank handle.

Too large a roll gap or too little roll tension under-conditions the crop, resulting in extended dry down times and increased potential for weather-related damage. Too close a roll gap or too much roll tension can severely over-condition the crop, breaking the tops away from the plants and causing excessive leaf loss. It can also cause excessive wear of the conditioning rolls if they touch while turning.

Properly Conditioned Crop

Properly conditioned crops will show a pattern of cracks at regular intervals along the plant stem. Each

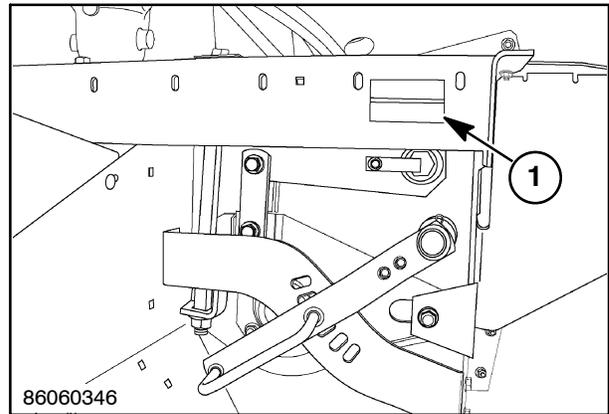
crack will be about 25–50 mm (1–2 in.) in length. The stem should look flat in these cracked areas. Depending on crop height when cut, there will be at least two or three cracks along the plant length. The plant leaves should show only minimal bruising. Leaf bruising is characterized by dark green streaks or marks across the leaf surface. While some leaf bruising can't be avoided, too much bruising is not good because the bruises allow moisture to escape the leaf. When this occurs, the leaf dries too quickly, resulting in loss of the plant leaf before or during packaging. This in turn reduces the overall feed value of the crop.

Checking Crop

As a general check, grab a handful of crop directly behind the machine after it has been processed and hold it in one hand. The plant stems should be fairly limp and just fold over your hand. Nine out of 10 stems in a random sample should show stem cracks. Inspect the leaves in the same random sample, and no more than 5% of the leaves should have bruising.

PRODUCT IDENTIFICATION NUMBER

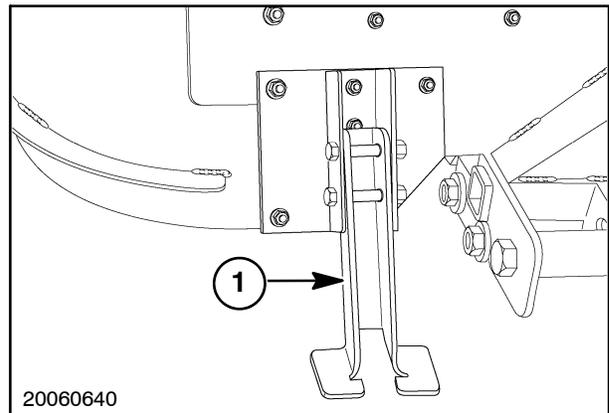
The product identification number plate, 1, for the disc mower-conditioner is located at the back on the left side of the frame.



3

JACK ASSEMBLY

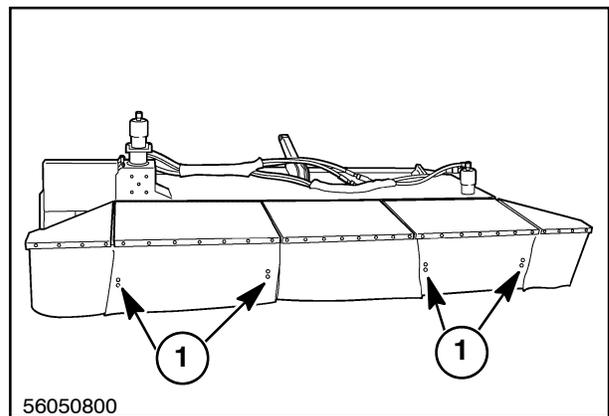
There is one jack stand on the header, 1, located on the left side of the unit.



4

SHIELDING

NOTE: Before raising either of the front shields, unhook the cutter bar shield skirt spring snaps, 1, at the skirt overlaps. Be sure that the skirts are reattached before using the header again.

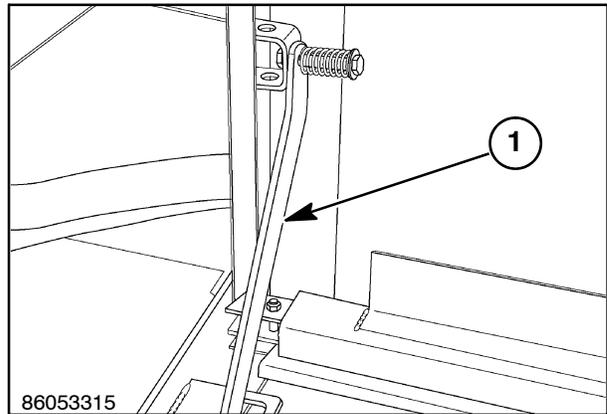


5

When raised, the front shields are held in place by a lever, 1. The lever automatically springs into the lock as the shield is raised. To lower the shield, release the lever by pushing it to the side.

⚠ WARNING ⚠

Close shields prior to operating the machine to prevent damage to the shield. Running the header with a damaged shield may result in bodily injury from flying objects. Failure to comply could result in death or serious injury.



6

STORING THE HEADER

When preparing the header for storage:

1. Clean the header thoroughly. Remove any build-up of debris and any wrapped material from the cutter bar and the conditioner rolls.
2. Lubricate the header.
3. Drain the oil from all gearboxes and refill with clean oil of the correct specification to the correct level. Run the header for a few minutes.
4. Inspect for worn or broken parts. Replace with genuine factory parts.
5. Relieve roll pressure.
6. Remove tension from the roll drive belt.
7. Clean rusted or abraded areas and touch up with factory paint. Spray cans are available from your authorized dealer.
8. Store the header where it is not exposed to weather.

SPECIFICATIONS

2353 DISC HEADER

Overall Width 4039 mm (13 ft 3 in)

Weight (including container) 1328 kg (2900 lb)

Header Drive Hydraulic, variable flow - Forward - 345 bar (5000 PSI)
 Hydraulic, variable flow - Reverse - 400 bar (5800 PSI)

Header

Flotation Vertical and radial
 Cutting width 3906 mm (13 ft)
 Transport Height to bottom of skid shoe with 18.4 x 26 tires 588 mm (22 in)
 Transport Height to bottom of skid shoe with 21L x 28 tires 752 mm (29.6 in)
 Transport Height to bottom of skid shoe on HW340 tractor 483 mm (19 in)

Cutter Bar

Type Modular
 No. of discs 10 counter-rotating
 Knives per disc 2
 Disc cutting diameter 500 mm (19.7 in)
 Disc drive Bevel gears in sealed modules
 Disc speed Variable from approx. 1600 to 3100 RPM
 Cutting height with 18.4 x 26 tires 32 - 89 mm (1.25 - 3.5 in)
 Cutting height with 21L x 28 tires 13 - 76 mm (0.5 - 3 in)
 Cutter bar angle with 18.4 x 26 tires Adjustable from -0.6° to -12° hydraulically controlled
 Cutter bar angle with 21L x 28 tires Adjustable from -2° to -13° hydraulically controlled

Conditioner

Type Intermeshing rolls
 Drive 4HB V-belt, enclosed gears with U-joint drives to upper and lower rolls
 Roll type Molded rubber with intermeshing chevron design
 Roll length 2591 mm (102 in)
 Roll diameter 264 mm (10-3/8 in)
 Roll speed Variable with header speed
 Roll pressure Torsion bar, single crank adjustment
 Crop discharge Adjustable from 2438 - 965 mm (96 - 38 in)

Field-Installed Options

High stubble kit
 Rolling Coulter Crop Dividers (available through Service Parts)
 Pushbar with tubular crop divider
 Corner marker kit
 Crop divider kit
 Steel conditioning rolls

SPECIAL TOOLS

FNH23ET95 - Top Cap Assembly Cover

FNH01221 - Cutter Bar Set

HARDWARE TORQUE VALUES

Check the tightness of hardware periodically.

Use the following charts to determine the correct torque when checking, adjusting or replacing hardware on the tractor.

IMPORTANT: *DO NOT use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.*

Install a lock washer on all bolts unless a locknut or jam nut is specified.

Install a flat washer at all slotted holes unless a carriage bolt or flanged head bolt is specified.

Make sure fastener threads are clean and not damaged.

NOTE: *A torque wrench is necessary to properly torque hardware.*

MINIMUM HARDWARE TIGHTENING TORQUES

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

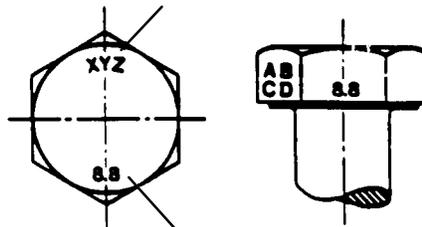
METRIC NON-FLANGED HARDWARE AND LOCKNUTS

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

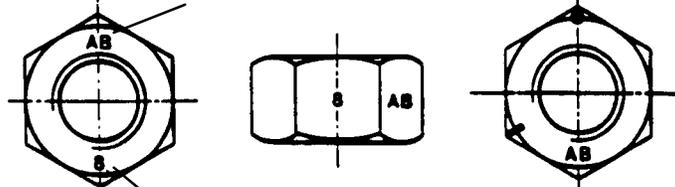
MANUFACTURER'S IDENTIFICATION



PROPERTY CLASS

HEX NUTS AND LOCKNUTS CLASSES 05 AND UP

MANUFACTURER'S IDENTIFICATION



PROPERTY CLASS

CLOCK MARKING

MINIMUM HARDWARE TIGHTENING TORQUES

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

INCH NON-FLANGED HARDWARE AND LOCKNUTS

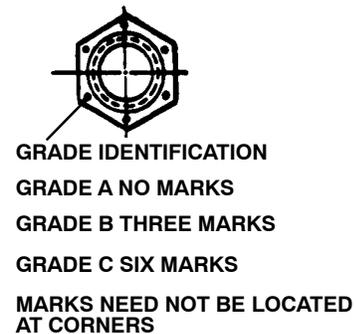
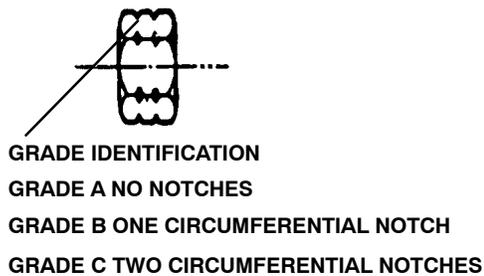
NOMINAL SIZE	SAE GRADE 2		SAE GRADE 5		SAE GRADE 8		LOCKNUTS		NOMINAL SIZE
	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	GR.B w/GR5 BOLT	GR.C w/GR8 BOLT	
1/4	6.2 (55)*	8.1 (72)*	9.7 (86)*	13 (112)*	14 (121)*	18 (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



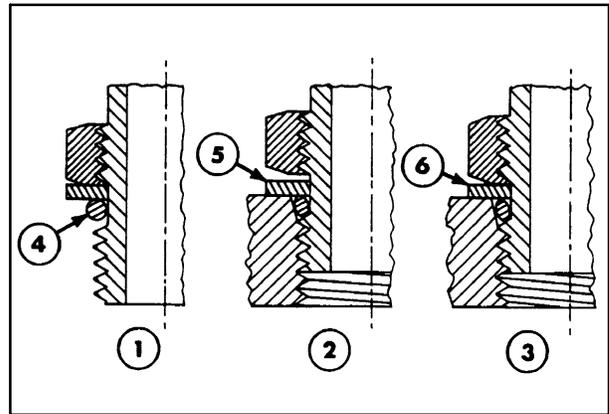
LOCKNUTS



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.



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3. Position the fitting by turning out (counterclockwise) 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.

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	FOOT POUNDS		NEWTON METERS		FOOT POUNDS		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" (12.7 mm) OD and larger with wall thickness of 0.035" (0.889 mm) or less. The torque is specified for 0.035" (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 retorquing 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" - 27	13 N·m (10 ft-lb)
1/4" - 18	16 N·m (12 ft-lb)
3/8" - 14	22 N·m (16 ft-lb)
1/2" - 14	41 N·m (30 ft-lb)
3/4" - 14	54 N·m (40 ft-lb)

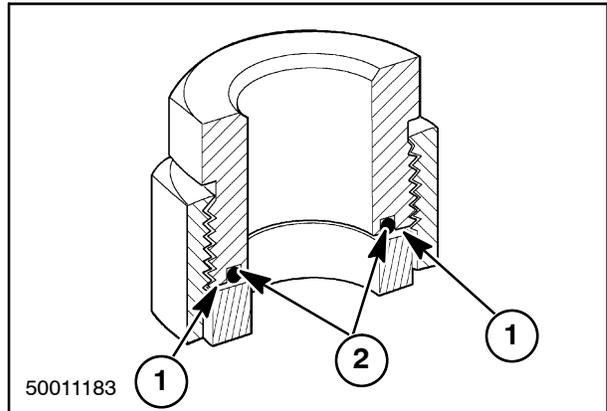
INSTALLATION OF ORFS (O-RING FLAT FACED) FITTINGS

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 repair 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 factory 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.



RECOMMENDED SEALANTS (North America Only)

SEALANTS

Description	Part Number	Typical Applications	Strength	Color
Thread Lock	L22200 (222)	Small screws/hardware	Low	Purple
	L24231 (242)	Small screws/hardware	Medium	Blue
	L29000 (290)	Wicking Type	Medium	Green
	L26231 (262)	Nuts & Bolts	High	Red
Thread Sealant	L54531 (545)	Hydraulic/Pneumatic	Non-fouling	
	L56531 (565)	Pipe Sealant	Controlled strength	
	L56747 (567)	Pipe Sealant	High temperature	
Silicones	L81724 (3.5 oz tube)	Ultra Blue RTV Gasket	Non-corrosive	Blue
	L58775 (10.2 oz cartridge)	Ultra Blue RTV Gasket	Non-corrosive	Blue
	L82180 (3.35 oz tube)	Ultra Blue RTV Gasket	Non-corrosive	Black
	L59875 (10.2 oz cartridge)	Ultra Blue RTV Gasket	Non-corrosive	Black
518 Gasket Eliminator	L51831DS	Mating Machined Surfaces	Flexible	Red

ECOLOGY AND THE ENVIRONMENT

Soil, air, and water are vital factors of agriculture and life in general. When legislation does not yet rule the treatment of some of the substances which are required by advanced technology, common sense should govern the use and disposal of products of a chemical and petrochemical nature.

The following are recommendations which may be of assistance:

- Become acquainted with and ensure that you understand the relative legislation applicable to your country.
- Where no legislation exists, obtain information from suppliers of oils, filters, batteries, fuels, anti-freeze, cleaning agents, etc., with regard to their effect on man and nature and how to safely store, use and dispose of these substances. Agricultural consultants will, in many cases, be able to help you as well.

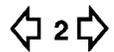
HELPFUL HINTS

1. Avoid filling tanks using cans or inappropriate pressurized fuel delivery systems which may cause considerable spillage.
2. In general, avoid skin contact with all fuels, oils, acids, solvents, etc. Most of them contain substances which may be harmful to your health.

3. Modern oils contain additives. Do not burn contaminated fuels and or waste oils in ordinary heating systems.
4. Avoid spillage when draining off used engine coolant mixtures, engine, gearbox and hydraulic oils, brake fluids, etc. Do not mix drained brake fluids or fuels with lubricants. Store them safely until they can be disposed of in a proper way to comply with local legislation and available resources.
5. Modern coolant mixtures, i.e. antifreeze and other additives, should be replaced every two years. They should not be allowed to get into the soil but should be collected and disposed of safely.
6. Do not open the air-conditioning system yourself. It contains gases which should not be released into the atmosphere. Your dealer or air conditioning specialist has a special extractor for this purpose and will have to recharge the system properly.
7. Repair and leaks or defects in the engine cooling or hydraulic system immediately.
8. Do not increase the pressure in a pressurized circuit as this may lead to a component failure.
9. Protect hoses during welding as penetrating weld splatter may burn a hole or weaken them, allowing the loss of oils, coolant, etc.

UNIVERSAL SYMBOLS

As a guide to the operation of your tractor, various universal symbols have been utilized on the instruments, controls, switches, and fuse box. The symbols are shown below with an indication of their meaning.

	Thermostart starting aid		Radio		P.T.O.		Position Control
	Alternator charge	KAM	Keep alive memory	N	Transmission in neutral		Draft Control
	Fuel level		Turn signals		Creepers gears		Accessory socket
	Automatic Fuel shut-off		Turn signals -one trailer		Slow or low setting		Implement socket
	Engine speed (rev/min x 100)		Turn signals -two trailers		Fast or high setting		%age slip
	Hours recorded		Front wind-screen wash/wipe		Ground speed		Hitch raise (rear)
	Engine oil pressure		Rear wind-screen wash/wipe		Differential lock		Hitch lower (rear)
	Engine coolant temperature		Heater temperature control		Rear axle oil temperature		Hitch height limit (rear)
	Coolant level		Heater fan		Transmission oil pressure		Hitch height limit (front)
	Tractor lights		Air conditioner		Hitch disabled		Hydraulic and transmission filters
	Headlamp main beam		Air filter blocked		FWD engaged		Remote valve extend
	Headlamp dipped beam		Parking brake		FWD disengaged		Remote valve retract
	Work lamps		Brake fluid level		Warning!		Remote valve float
	Stop lamps		Trailer brake		Hazard warning lights		Malfunction! See Operator's Manual
	Horn		Roof beacon		Variable control		Malfunction! (alternative symbol) See Operator's Manual
			Warning! Corrosive substance		Pressurized! Open carefully		

SECTION 00 - GENERAL INFORMATION

Chapter 2 - Adjustments

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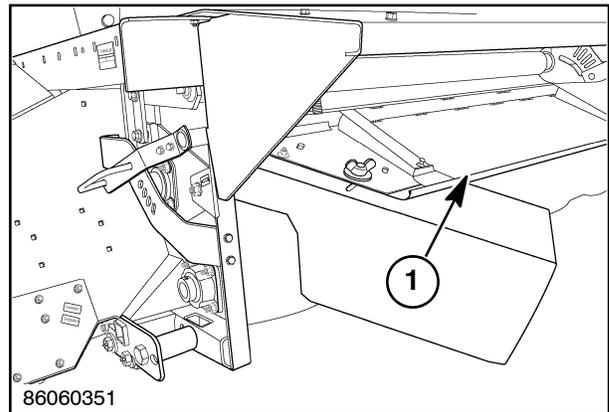
DESCRIPTION AND OPERATION

————— **⚠ DANGER ⚠** —————

Never make any adjustments or attempt to work on the header with the engine running. Disengage the header drive, lower the header to the ground or lock it in the transport position, shut off the engine, remove the key from the key-switch and engage the parking brake before attempting any adjustments or doing any work on the header. Failure to comply will result in death or serious injury.

SWATHING

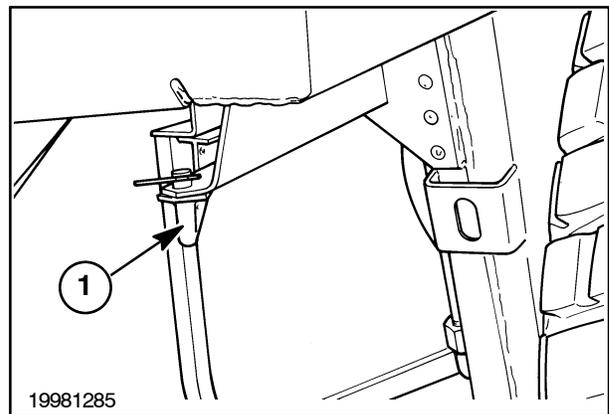
The swath gate and the windrow shields may be adjusted obtain swathing or to set windrow width. The swath gate, 1, is located directly behind the conditioner rolls.



1

HW340

The windrow shields are located under the tractor and can be adjusted to seven different positions. To change setting, remove the hairpin cotter securing the rod, 1, and move the rod to the position desired.



2