DH182, DH212, DH252, DH302, DH362 Draper Headers

Service Manual

87519333 5/09
1st Printing

CASE IH AGRICULTURE

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COMPLETE CONTENTS

SECTION 00 - GENERAL INFORMATION

Chapter 1 - General Information

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SPECIFICATIONS

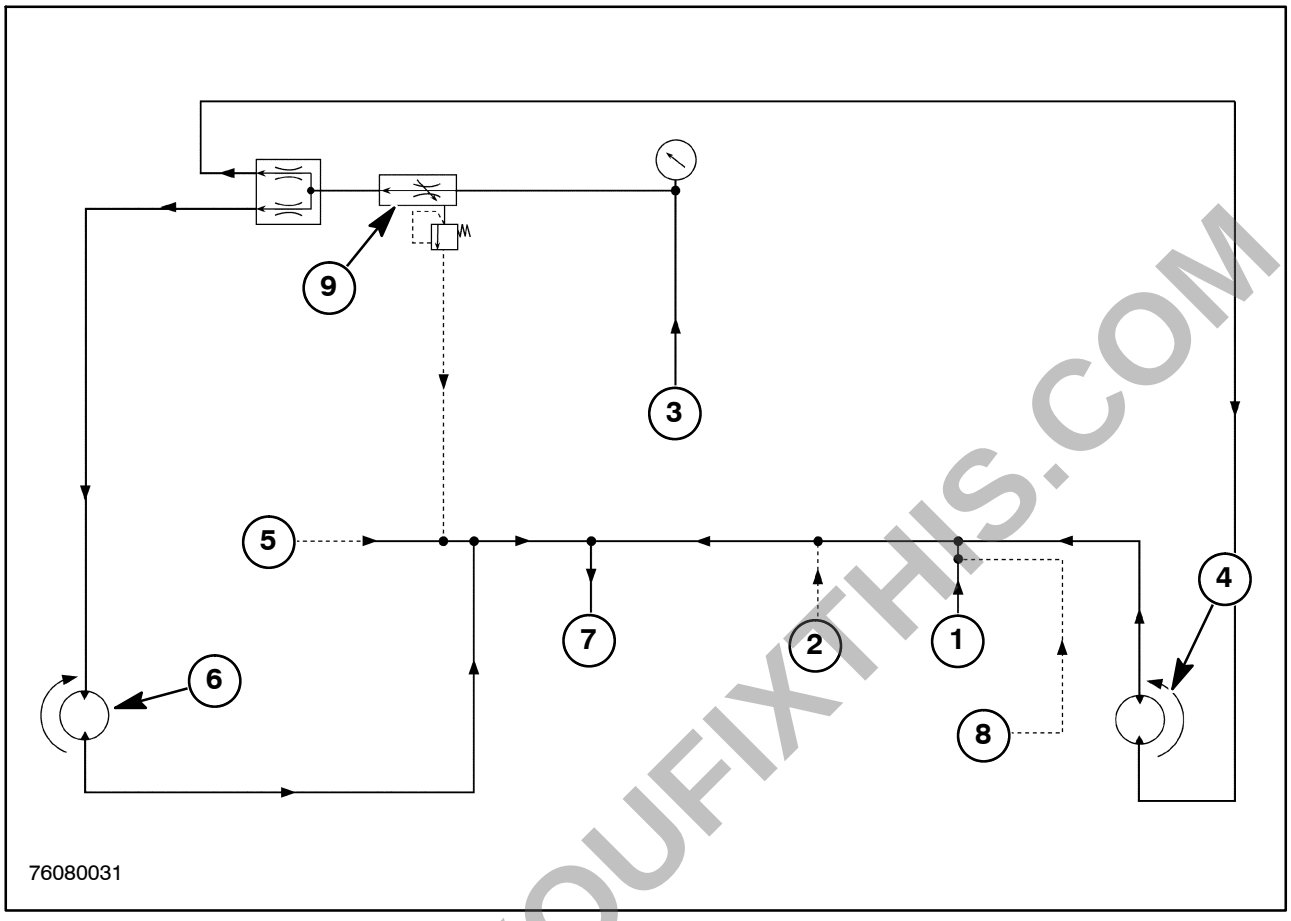
HEADERS

Model	DH182	DH212	DH252	DH302	Dh362
Cut Width	5.5 m (18 ft)	6.4 m (21 ft)	7.6 m (25 ft)	9.1 m (30 ft)	11 m (36 ft)
Crop Delivery	Center Only	Center or Double Swath	Center or Double Swath	Center or Double Swath	Center or Double Swath
Recommended NH Windrowers	WDX1202, WDX1902, WDX2302, WD1203, WD1903, WD2303 Will not fit prior-model Case IH windrowers WDX901, WDX1101, and WDX1901				
Header Flotation	Windrower-based standard hydraulic flotation on 4-cylinder windrowers. Independent hydraulic flotation on 6-cylinder windrowers.				
Knife Drive	Single or Double				
Crop Cutting System	Choice of single- or double-knife Schumacher Easy-Cut™ system with spring steel guards and bolted knife sections, or double-knife Case IH system with forged steel guards, adjustable hold-down clips and bolted knife sections.				
Knife Stroke/Speed	84 mm (3.31 in) stroke/1400 spm				
Drive Rolls	Steel				
Draper Belts	1066 mm (42 in) rubberized polyester belt with fiberglass reinforcement. Tie-bar end connection. Belt speed infinitely variable from 0–705 fpm				
Reel Choice*	UII 5- or 6-bat with steel or plastic fingers, HCC 6-bat with plastic fingers. (UII 6-bat with steel fingers recommended for green hay cutting)				
Reel Positioning	Hydraulic raise/lower adjustment standard equipment. Manual fore/aft adjustment standard, with hydraulic fore/aft adjustment option				
Reel Speed	20–48 rpm				
Skid Plates	Full-width steel or UHMW skid plates optionally available				
On-farm Transport Axle	Standard				
Castoring Gauge Wheels	Optional on 25 ft; Standard on 30 ft and 36 ft				
End Gauge Wheels	Optional				
Hyd. Fore/Aft Reel Adjust	Optional				

* All reels listed may not be available on all models or markets. See your dealer for details.

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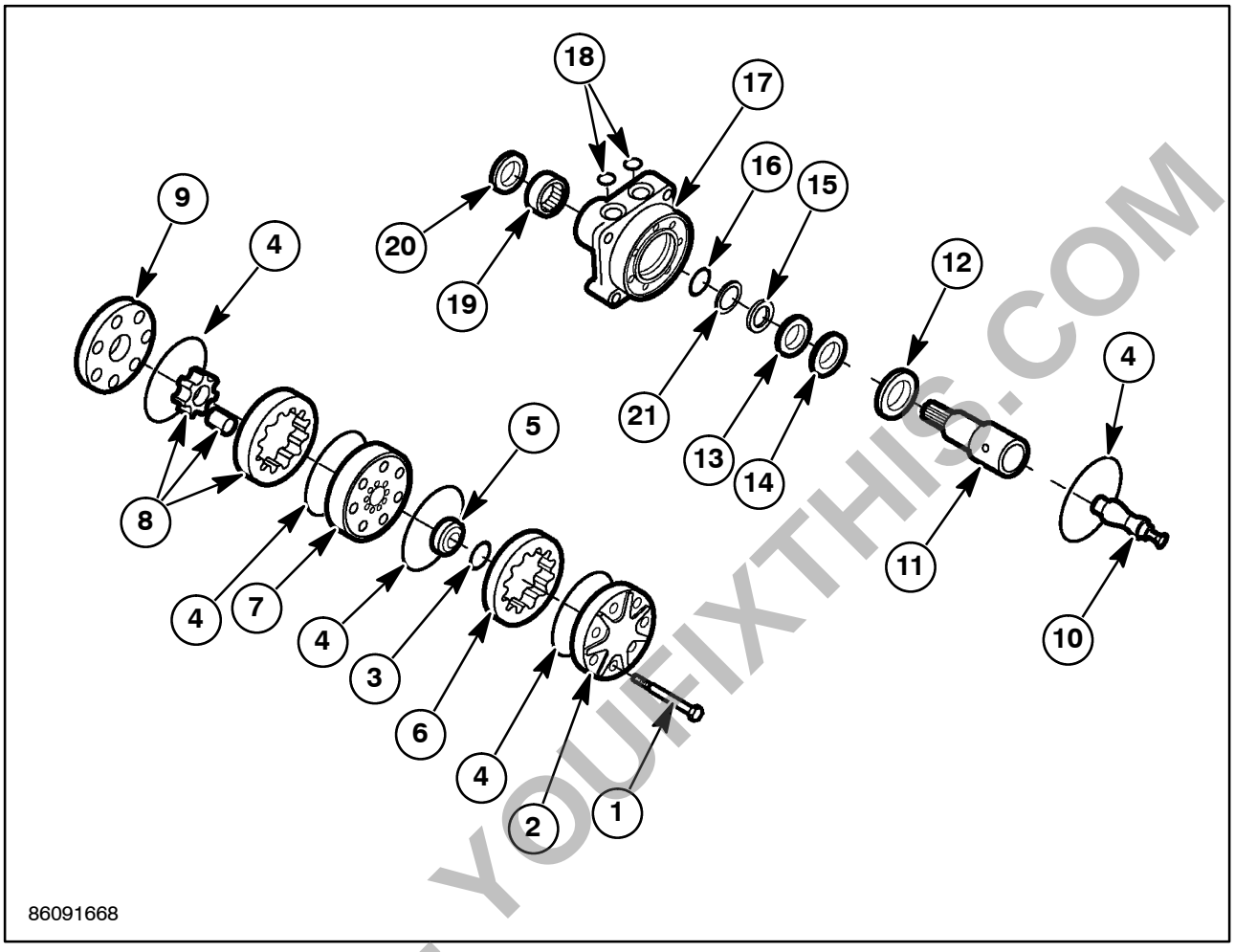
Draper Drive - Single Swath

1. Reel Drive Return
2. Reel Drive Flow Control (excess flow)
3. Knife Drive Return
4. Right Draper Drive Motor
5. Left Knife Motor Drain
6. Left Draper Drive Motor
7. Main Return
8. Right Knife Motor Drain (double models drive only)
9. 20 gpm Flow Control

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PARKER MOTOR



3

1. Special bolts
2. End cover
3. Seal ring – commutator
4. Seal ring
5. Commutator
6. Commutator
7. Manifold
8. Rotor set
9. Wear plate
10. Drive link
11. Coupling shaft
12. Bearing/bushing, inner
13. Thrust washer
14. Thrust bearing
15. Seal
16. Backup ring
17. Housing
18. O-Ring (2)
19. Bearing/bushing, outer
20. Dirt and water seal
21. Backup washer

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WHITE (ROLLER STATOR) HYDRAULIC MOTOR SEAL REPLACEMENT

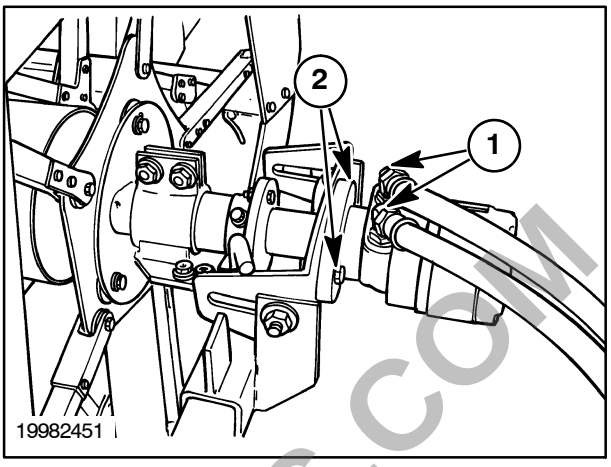
REVERSER MOTOR

Removal

Before disconnecting the hoses, thoroughly clean off all outside dirt around the fittings. After disconnecting the hose, **IMMEDIATELY** plug the port holes.

1. Disconnect hoses, 1. Mark the hoses for correct assembly of forward and reverse.
2. Remove the cap screws, 2.
3. Drain the fluid from the motor. Wash the exterior of the motor in clean solvent.

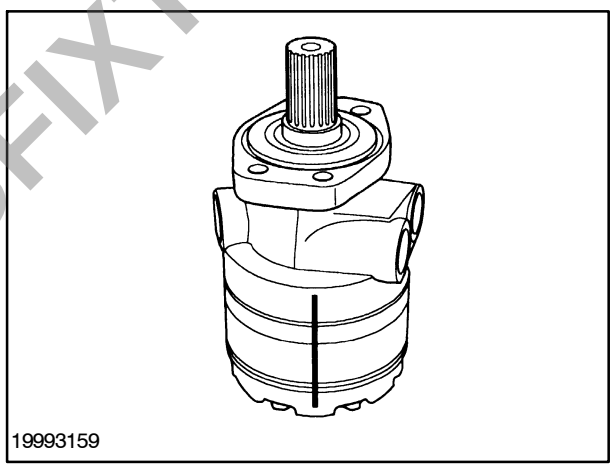
All disassembled parts should be cleaned separately in clean solvent and blown dry with air to avoid nicks and burrs.



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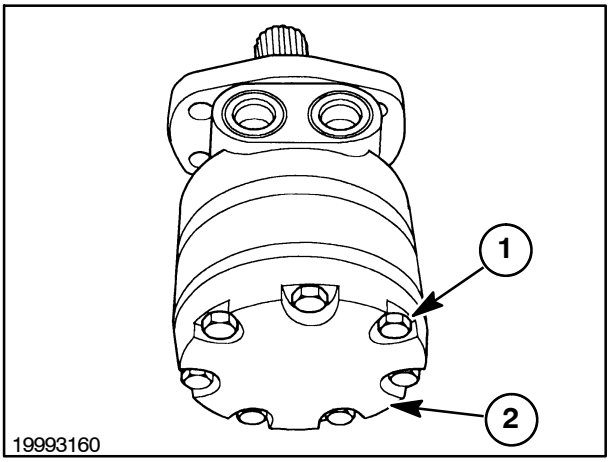
Disassembly

1. Mark the motor assembly as shown, to facilitate proper reassembly.
2. Place the motor in a vise, clamping down on the housing port bosses with the coupling shaft pointed down.



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3. Remove the seven cap screws, 1. Inspect screws for damaged threads, or the sealing ring under the bolt head. Replace the damaged bolts.
4. Remove end cap, 2.



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MINIMUM HARDWARE TIGHTENING TORQUES

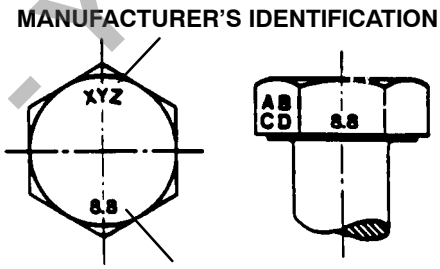
IN NEWTON-METERS (FOOT POUNDS) FOR NORMAL ASSEMBLY APPLICATIONS

METRIC NON-FLANGED HARDWARE AND LOCKNUTS

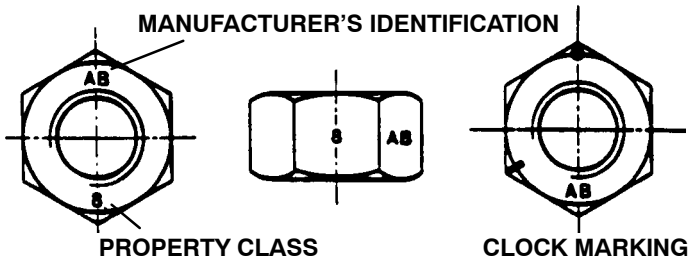
NOMINAL SIZE	CLASS 5.8		CLASS 8.8		CLASS 10.9		LOCKNUT CL.8 W/CL8.8 BOLT
	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	
M4	1.7 (15)*	2.2 (19)*	2.6 (23)*	3.4 (30)*	3.7 (33)*	4.8 (42)*	2.3 (20)*
M6	5.8 (51)*	7.6 (67)*	8.9 (79)*	12 (102)*	13 (115)*	17 (150)*	7.8 (69)*
M8	14 (124)*	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)

NOTICE: 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



86529681 REV F 5.1

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TROUBLESHOOTING

TROUBLESHOOTING CHARTS

Use the following troubleshooting charts to identify and correct problems in reel lift systems.

PROBLEM	POSSIBLE CAUSE	SOLUTION
REEL		
Reel will not hold height.	Leaking hose or fitting. Valve in windrower leaking.	Repair or replace. See Windrower's Repair Manual.
Reel will not hold level.	Leaking hose or fitting. Air in system. Faulty master cylinder. Leaking cylinder seal.	Repair or replace. Bleed slave cylinder. Repair or replace. Replace seal.
Reel raises or lowers erratically and/or reel will not raise.	Reel cylinders binding. Arms bent or binding. Low hydraulic oil. Hydraulic couplers don't match. Hydraulic couplers not engaged. Faulty hydraulics.	Replace cylinder. Repair or replace. See Windrower's Repair Manual. Install correct couplers. Re-couple properly. See Windrower's Repair Manual.
Reel raises slowly.	Elbow in master cylinder too tight.	Loosen fitting.
Damage to center of reel.	Reel set too low.	Adjust height.
Reel hitting at end.	Reel not centered.	Adjust centering.
Reel will not turn or turns erratically.	Flow control set too low. Low engine RPM. Faulty relief valve. Seized bearing(s). Faulty drive motor. Reel tied down. Hydraulic couplers not engaged.	Advance setting. Increase engine RPM. Clean or replace. Replace bearing(s). Replace motor. Release reel. Re-couple properly.
Reel speed cannot be adjusted. – Header driven reel.	Poor connection in electrical wires or cable. Defective reel speed motor. Faulty flow control.	Check connections and cable. Replace motor. Replace flow control valve.
Single Reel		
Reel does not raise level.	Air in system.	Bleed slave cylinder.
Right side goes up slow.	Air in system. Restricted hydraulic hose.	Bleed slave cylinder. Replace hose.
Right side will not raise.	Leaking hose, fitting, or cylinder.	Repair or replace.
Left side goes up slow.	Faulty piston seal.	Replace seals.
Left side will not raise.	Faulty cylinder. Faulty bypass port. Faulty piston seal.	Replace cylinder. Replace cylinder. Replace seals.

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DESCRIPTION OF OPERATION

ELECTRICAL SYSTEM

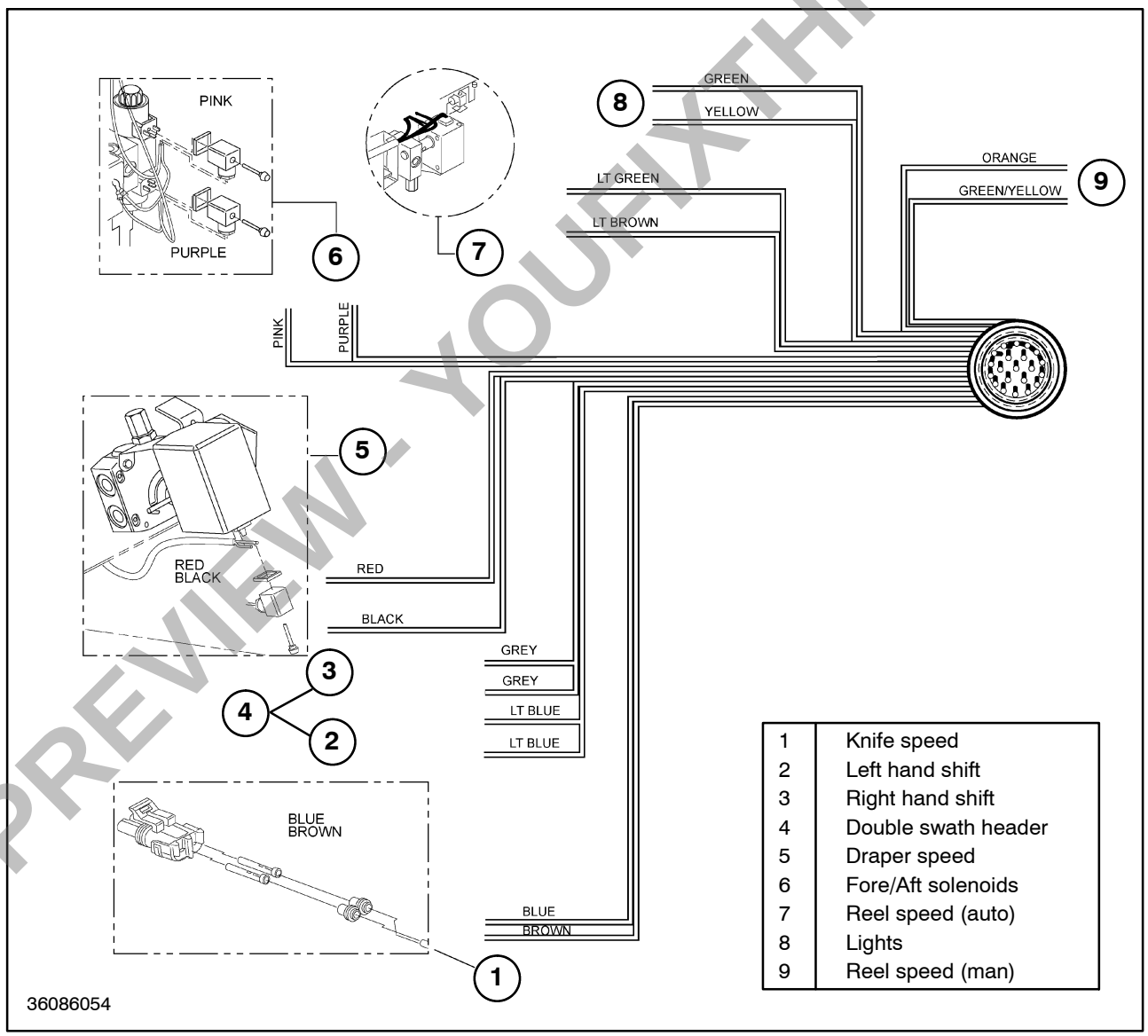
The electrical system on the DH series draper header consists of the flashing lights, the trailer lights and the wiring necessary for operating the lighting.

Draper headers also have a wiring harness that connects with the windrower. The harness allows the header features and options to be operated from the switches and controls in the windrower cab's electronic console or multi-function handle (MFH).

NOTICE: *Refer to the Windrower's Operator's Manual for more information on the electronic console and MFH.*

The windrower cab or MFH contains switches for the following features and options, which may or may not be installed on the draper header: reel speed, draper speed, deckshift, hydraulic fore/aft.

Power is provided from the windrower to operate all of the features and options through a wiring harness. Ground is supplied by the windrower and draper header because the ground wires are incorporated into the wiring harness.

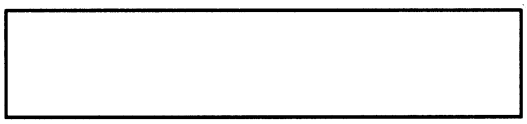


1	Knife speed
2	Left hand shift
3	Right hand shift
4	Double swath header
5	Draper speed
6	Fore/Aft solenoids
7	Reel speed (auto)
8	Lights
9	Reel speed (man)

1

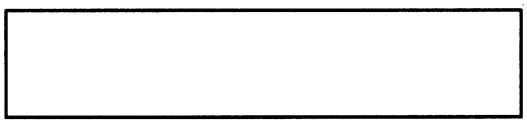
Wiring Harness Diagram

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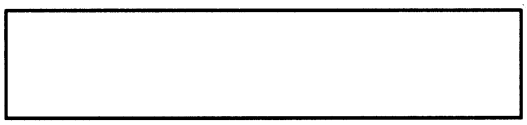
Red Retroreflective Tape

Decal 1 - 86547781



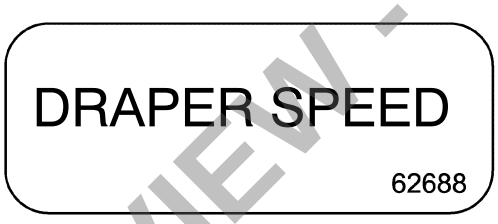
Yellow Retroreflective Tape

Decal 2 - 86547782

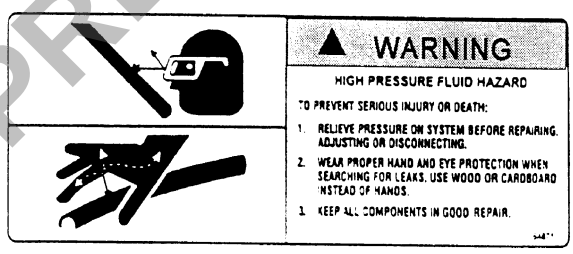


Red/Orange Fluorescent Tape

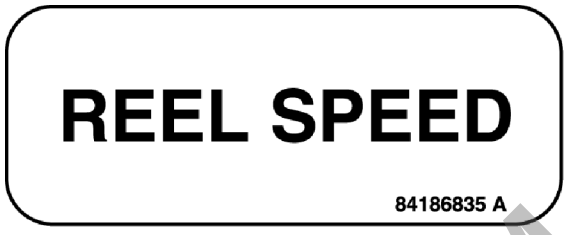
Decal 3 - 86547783



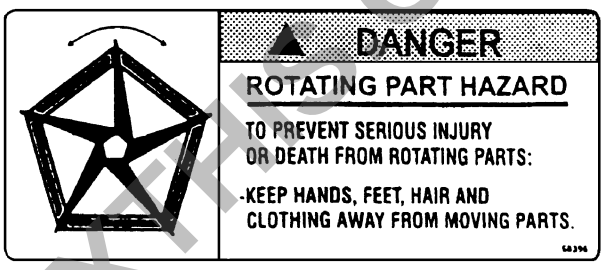
Decal 4 - 86564393



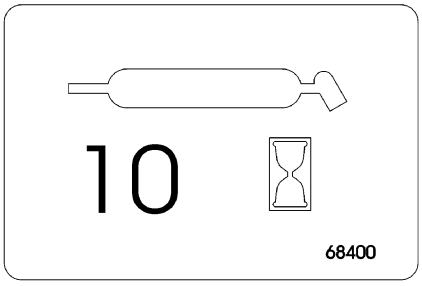
Decal 5 - 86564394



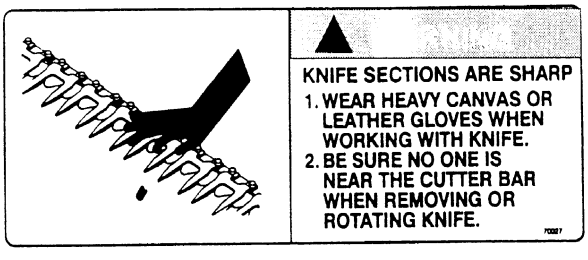
Decal 6 - 84186835



Decal 7 - 86564398



Decal 8 - 86564399



Decal 9 - 86564403

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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. **When transporting the machine on public roads, make sure the machine has lights in compliance with ASAE S279.13 standard and the machine is in compliance with all local road regulations.**
2. **Before operating the unit, be sure that it is assembled correctly and in good operating condition.**
3. **If machine maintenance work, repairs or adjustments must be done in the field, they should be done at a spot where the ground is firm and level. Turn off the tractor and apply the parking brake. Use the proper tools and wear suitable protection (safety goggles, work gloves, etc.).**
4. **If any maintenance work, repairs or adjustments are done which require disassembly, always make sure that everything is reassembled or retightened as it had been prior to making repairs or adjustments.**
5. **Follow the schedule provided for maintenance. By following these suggestions, it will be possible to keep the machine operating safely and efficiently, to the benefit of the user.**
6. **General checking of bolts, security pins and split pins must be carried out initially after the first 8 hours of use. Subsequently, check every 50 hours and whenever the machine is laid up for extended periods.**
7. **Before applying pressure to the system, be sure all connections are tight and that hoses and connections are not damaged.**
8. **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. If injured by escaping fluid, obtain medical assistance at once. Serious infection or reaction can develop if medical treatment is not administered immediately.**
9. **Do not weld on wheels. Welding on wheels may cause high stress and a wheel failure.**
10. **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.**
11. **Before leaving the cab, engage the parking brake, shut down the engine, and wait for all moving parts to stop.**
12. **Always keep bystanders away from machine during operation. Rotating elements may cause serious bodily injury.**
13. **Do not attempt to remove material from the draper header while it is in operation. Shut off the tractor and allow all rotating parts to stop before leaving the tractor.**
14. **Be sure the tractor header lift locks are engaged before working on or around a raised header.**
15. **Engage the lift locks or lower the header to the ground before performing any maintenance or lubrication.**
16. **Replace any damage knives or knife hardware immediately to prevent an accident.**
17. **Always wear heavy canvas or leather gloves when working with the knife.**
18. **Always engage the reel lift cylinder locks and header lift locks before working under or around a raised reel. Do not rely on the windrower hydraulic system for support. A rupture or a leak in any part of the system will allow the table to lower if the proper stops are not in place.**
19. **When mounting to a windrower, make sure the ends of the lift arms are securely in the mounting brackets under the header. Failure to do so could allow the header to fall or slide off the arms, causing damage to the header or personal injury.**

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SECTION 00 - GENERAL INFORMATION

Chapter 2 - Specifications

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SECTION 35 - HYDRAULICS

Chapter 1 - Draper Drive

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