

DH182, DH212, DH252, DH302, DH362 Draper Headers

Service Manual

87519333 5/09
1st Printing



DH182, DH212, DH252, DH302, DH362 SERVICE MANUAL CONTENTS

SECTION 00 - GENERAL INFORMATION

SECTION 35 - HYDRAULICS

SECTION 55 - ELECTRICAL

SECTION 58 - ATTACHMENTS

SECTION 90 - DECALS

The sections used through out all Case IH 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 DH182, DH212, DH252, DH302 and DH362.

COMPLETE CONTENTS

SECTION 00 - GENERAL INFORMATION

Chapter 1 - General Information

CONTENTS

Section	Description	Page
	Precautionary Statements	2
	Safety	3
	General Safety	4
	Operating and Maintenance Safety	5
	Hydraulic Safety	5
	Welding Safety	5
	Before Transporting	6
	Transport Safety	6
	Transporting Checks	7
	Towing Restrictions on Public Roads	7
	Windrower Mounting	8
	Windrower Header	8
	Principal Components	8
	Product Identification Number (PIN)	9
	Ballast System	9
	Single Swath	10
	Double Swath	11
	DH Series Swather Delivery Kits	12
	Single Swath Delivery	12
	Double Swath Delivery	12
	Header Hydraulic Drive System	13
	Ecology and the Environment	14
	Helpful Hints	14
	International Symbols	15
	Minimum Hardware Tightening Torques	16
	Installation of Adjustable Fittings in Straight Thread O-ring Bosses	18
	Standard Torque Data for Hydraulic Tubes and Fittings	18
	Pipe Thread Fitting Torque	19
	Installation of O-ring Flat Faced Fittings	19
	Hydraulic Fitting Torque	20

SECTION 00 - GENERAL INFORMATION

Chapter 2 - Specifications

CONTENTS

Section	Description	Page
	Specifications	2
	Headers	2
	Options	2

SECTION 35 - HYDRAULICS

Chapter 1 - Draper Drive

CONTENTS

Section	Description	Page
	Draper Drive	2
	Hydraulic Schematic Symbols	2
	Fore and Aft	5
	Hydraulic Schematic Symbols	5
	Knife Drive	8
	Hydraulic Schematic Symbols	8
	Reel Drive	11
	Hydraulic Schematic Symbols	11
	Reel Lift	14
	Hydraulic Schematic Symbols	14
	Upper Tube Hydraulics	18
	Hydraulic Schematic Symbols	18

SECTION 35 - HYDRAULICS

Chapter 2 - Windrower Headers

CONTENTS

Section	Description	Page
	Single Reel Lift Circuit	2
	Double Reel Lift Circuit	2
	Single Reel Lift 36 Foot	2

SECTION 35 - HYDRAULICS

Chapter 3 - Schematics and Troubleshooting

CONTENTS

Section	Description	Page
	Troubleshooting	2
	Hydraulic Problems	2
	Oil Overheating	2
	Hydraulic System Tests	3
	Relief Valve	3
	Knife Circuit	3
	High Pressure Readings	4
	Draper Circuit Operation and Testing	4
	Draper Motor Circuit	5
	Reel Motor Circuit	5
	Low Pressure Readings	5
	Knife Relief Pressure Adjustment	5

SECTION 35 - HYDRAULICS

Chapter 4 - Pumps, Motors and Flow Dividers

CONTENTS

Section	Description	Page
	Description of Operation	2
	Hydraulic Motors	2
	Parker Motor	4
	White Motor	5
	Eaton Motor	6
	White (Roller Stator) Hydraulic Motor Seal Replacement	7
	Reverser Motor	7
	Removal	7
	Disassembly	7
	Assembly	11
	Hydraulic Manifold Block	15
	Removal	15
	Disassembly	16
	Assembly and Installation	16
	Flow Divider	17
	Removal	17
	Installation	18
	Draper Flow Control	19
	Removal	19
	Installation	19
	Cartridge	20
	Pressure Vent	21
	Removal	21
	Disassembly	21
	Assembly	22
	Installation	22

SECTION 35 - HYDRAULICS

Chapter 5 - Reel Lift

CONTENTS

Section	Description	Page
	Description of Operation	2
	Purging Air From Reel Positioning Systems	2
	Bleeding Slave Cylinders	2
	Purging Air From Reel Fore/Aft Systems	2
	Troubleshooting	3
	Troubleshooting Charts	3
	Hydraulic Cylinders	7
	Overhaul	9
	Hydraulic Cylinders - Removal	9
	Reel Fore/Aft	9
	Reel Lift Master Cylinder	9
	Reel Lift Slave Cylinder	9
	All Cylinders	10
	Disassembly	10
	Assembly	11
	Hydraulic Cylinders - Installation	13
	Reel Fore/Aft	13
	Reel Lift Master Cylinder	14
	Reel Lift Slave Cylinder	14

SECTION 55 - ELECTRICAL

Chapter 1 - Windrower Headers

CONTENTS

Section	Description	Page
	Description of Operation	2
	Electrical System	2
	Lights	5
	Remote Speed Control	6
	Sickle Drive Speed Sensor	6
	Sensor To Pulse Wheel Adjustment	6
	Automatic Reel Speed Control	7

SECTION 58 - ATTACHMENTS

Chapter 1 - Drivelines - Knife Drive

CONTENTS

Section	Description	Page
	Description of Operation and Overhaul	3
	Knife Drive	3
	Removal	4
	Replacement	5
	All Cutting Systems	7
	Knife	7
	Removal	7
	Installation	7
	Schumacher Cutting System	8
	Guards	8
	Sections	8
	Replacement	8
	Case IH Cutting System	9
	Knife Hold-Down Clips	9
	Adjustment	9
	Replacement	9

SECTION 58 - ATTACHMENTS

Chapter 1 - Drivelines - Knife Drive (Continued)

CONTENTS

Section	Description	Page
	Cutter Bar Shimming - Case IH System	10
	All Guards to Left of Center Guard	10
	Center Guard	10
	All Guards to Right of Center Guard	10
	Guards	11
	Guard Alignment	12
	All Cutting Systems	12
	Knife Drive/Knife Head	12
	Replacement	12
	Schumacher Cutting System Only Knife Head	13
	Attachment	13
	Connector Bar	13
	Attachment	13
	Schumacher Overlap Kit	14
	Inspection and Replacement	14
	Case IH Cutting System Only	15
	Connector Bar	15
	Installation	15
	Knife Head	15
	Installation	15
	Overlap Tail	16
	Installation	16
	Draper Splicing	17
	Hydraulic Double Swath	19

SECTION 58 - ATTACHMENTS

Chapter 2 - Feeding Components - Draper Decks

CONTENTS

Section	Description	Page
	Description of Operation and Overhaul	2
	Main Draper Decks	3
	Tracking	3
	Disassembly	5
	Assembly	8

SECTION 90 - DECALS

Chapter 1 - Decals

CONTENTS

Section	Description	Page
	Safety Decals	2

SECTION 00 - GENERAL INFORMATION

Chapter 1 - General Information

CONTENTS

Section	Description	Page
	Precautionary Statements	2
	Safety	3
	General Safety	4
	Operating and Maintenance Safety	5
	Hydraulic Safety	5
	Welding Safety	5
	Before Transporting	6
	Transport Safety	6
	Transporting Checks	7
	Towing Restrictions on Public Roads	7
	Windrower Mounting	8
	Windrower Header	8
	Principal Components	8
	Product Identification Number (PIN)	9
	Ballast System	9
	Single Swath	10
	Double Swath	11
	DH Series Swather Delivery Kits	12
	Single Swath Delivery	12
	Double Swath Delivery	12
	Header Hydraulic Drive System	13
	Ecology and the Environment	14
	Helpful Hints	14
	International Symbols	15
	Minimum Hardware Tightening Torques	16
	Installation of Adjustable Fittings in Straight Thread O-ring Bosses	18
	Standard Torque Data for Hydraulic Tubes and Fittings	18
	Pipe Thread Fitting Torque	19
	Installation of O-ring Flat Faced Fittings	19
	Hydraulic Fitting Torque	20

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.

M1169

 **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.

M1170

 **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.

M1171

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

MACHINE SAFETY

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

NOTICE: The word “**NOTICE**” 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

NOTICE: 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. 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 re-assembled 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.

GENERAL SAFETY

YOU are responsible for the safe operation and maintenance of your model DH Series draper header. YOU must ensure that you and anyone else who is going to operate, maintain or work around the draper header be familiar with the operating and maintenance procedures and related safety information contained in this manual.

Remember YOU are the key to safety. Good safety practices not only protect you, but also the people around you. Make these practices a working part of your safety program. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

Review the operating instructions for this header at least once a year per OSHA regulations 1928.57. Know the meaning and location of each decal before operating the draper header.

Watch for this symbol in this manual and on the draper header:



It will draw your attention to hazards that could cause injury or death.

1. Keep the hydraulic pump, gearbox and motors clean of all chaff and straw to prevent any possibility of fire.
2. Carry a multipurpose fire extinguisher in the machine in case of fire and know how to use it. Check the extinguisher regularly and keep it maintained.

3. Provide a first aid kit in the cab for emergencies and know how to use it.
4. Wear appropriate protective gear.
 - A hard hat
 - Protective shoes with slip resistant soles
 - Protective glasses or goggles
 - Leather gloves
 - Hearing protection
 - Respirator or filter mask
5. Do not allow any one to ride on the header while it is in motion.
6. Make certain that the park brake is engaged, and the power unit is in neutral before starting the engine.
7. Clear the area of bystanders, especially small children before starting the power unit.
8. Do not allow anyone to operate the header who has not been instructed in how to operate the machine.
9. All operators should familiarize themselves with the safety section in the power unit operator's manual.
10. Some pictures or illustrations may not show protective shields in place. Make certain that all protective shields are in place before operating the machines.

OPERATING AND MAINTENANCE SAFETY

1. STOP the power unit, engage the parking brake, place the power unit in neutral, remove the key, and wait for all movement to stop before leaving the cab.
2. Either lower both the table and reel or raise the header to its full height and use platform locks before leaving the power unit or servicing the header. If working under reel, use reel cylinder locks. A sudden loss of hydraulic pressure could cause the header and reel to fall.
3. NEVER operate the power unit and the header while tired, sick, or impaired.
4. DANGER, DO NOT stand between the power unit and the header while raising or lowering the header.
5. Do not operate the header in crowded or confined areas.
6. Ensure that all the pressure is released from the hydraulic lines before repairing. Replace or repair damaged hoses immediately.
7. Care should be taken when maintaining the knife. The sickle sections are very sharp and can easily cause injury. Use heavy leather or canvas gloves when working with the knife.

HYDRAULIC SAFETY

Release all the pressure from the hydraulic lines before making any repairs. Replace or repair damaged hoses immediately.



WARNING



Hydraulic oil leaking under pressure can penetrate the skin and cause infection or other injury.

To Prevent Personal Injury:

- Relieve all hydraulic pressure, before disconnecting fluid lines.
- Before applying pressure, make sure all connections are tight and components are in good condition.
- Never use your hand to check for suspected leaks under pressure. Use a piece of cardboard or wood for this purpose.
- If injured by leaking fluid, seek medical attention immediately.

Failure to comply could result in death or serious injury.

M587A

WELDING SAFETY

DO NOT weld on wheels. Welding on wheels may cause high stress and wheel failure.

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.

Thank you so much for reading.
Please click the “Buy Now!”
button below to download the
complete manual.



After you pay.

You can download the most
perfect and complete manual in
the world immediately.

Our support email:

ebooklibonline@outlook.com