



CH3500 HARVESTER OPERATOR'S MANUAL

Introduction

Table of Contents

Section 1—Safety Recommendations

Section 2—Harvester Operations

Section 3—Operator's Station

Section 4—Operating the Engine

Section 5—Transporting the Harvester

Section 6—Fluid Recommendations

Section 7—Maintenance

Section 8—Service

Section 9—Torque Specifications

Section 10—CH3500 Specifications

Section 11—Tools and Supplies

Section 12—Oil and Filter Change Records

INDEX



CAMECO® CH3500 HARVESTER OPERATOR'S MANUAL

INTRODUCTION	1	Avoid Personal Injury and	1-25
Sugar Cane Flow	2	Damage to the Machine	1-25
CH3500 Identification View	iv	Keep Hands Away	1-25
SAFETY		Keep Away from Rotating Knives	1-26
Safety and You	1-1	Avoid Injury	1-26
Operation Safety	1-1	Follow Safety Instructions	1-27
Service Safety	1-2	Prevent Machine Runaway	1-28
Safety in Your Service Area	1-3	Exhaust System Warning	1-28
Safety when Cleaning or Storing	1-4	Tire Inflation	1-29
Safety Nevers	1-4	HARVESTER OPERATIONS	
Seat Safety Shut-off	1-5	Field Harvesting	2-1
Tilting the Cab	1-5	Harvesting a Field	2-1
Recognize Safety Information	1-6	A. Standard Harvesting	2-2
Understand Signal Words	1-6	B. Harvesting Over a Ditch	2-3
Follow Safety Instructions	1-7	C. Harvesting on a Headland	2-4
Protect Bystanders	1-7	D. Pulling a Wagon on the First Row	2-5
Use Handles and Steps	1-8	E. Harvesting a Large Field	2-6
Prevent Machine Runaway	1-8	F. Harvesting with a Wholestalker on the	
Avoid Exhaust Fumes	1-9	First Two Rows	2-7
Keep Riders Off Machine	1-9	Harvesting Conditions	2-8
Use Seat Belts	1-9	Harvesting Safety Tips	2-8
Handle Fuel Safely—Avoid Fires	1-10	Topping System	2-9
Safely Service Accumulator	1-10	Topping System Operation	2-9
Safely Service Cooling System	1-11	Crop Dividers	2-10
Prepare For Emergencies	1-11	Crop Divider Shoes	2-10
Wear Protective Clothing	1-12	Operation of Crop Divider Shoes	2-10
Use Safety Lights and Devices	1-12	Knockdown Roller	2-11
Use Cylinder Safety Stops	1-13	Basecutter	2-11
Practice Safe Maintenance	1-13	Basecutter Operation	2-11
Avoid High Pressure Fluids	1-14	Feed Rollers	2-12
Use Caution on Hillsides	1-14	Feed Rollers Operation	2-12
Stopping and Parking	1-15	Manual Billet Length Control	2-12
Service Tires Safely	1-16	Differential Chopper System	2-13
Transport Harvester Safely	1-16	Differential Chopper Operation	2-13
Avoid Electrical Power Lines	1-17	Primary Extractor	2-14
Keep Hands Away From Knives	1-17	Primary Extractor Operation	2-14
Avoid Contact with Moving Parts	1-18	Basket	2-15
Dispose of Waste Properly	1-18	Elevator System	2-15
Fire Prevention	1-19	Elevator System Operation	2-16
Do Not Open High-Pressure Fuel System	1-19	Secondary Extractor	2-17
Safety Recommendations	1-20	Secondary Extractor Operation	2-17
Harvester Safety	1-20	OPERATOR'S STATION	
Keep Riders Off Machine	1-21	Arm Rest Control Panel	3-1
Hazardous Area	1-21	Arm Rest Control Panel	3-2
Avoid Electrical Power Lines	1-22	Safety Seat Shut Off	3-6
Practice Safe Maintenance	1-22	Forward Control Panel	3-7
Prevent Fires	1-23	Forward Control Panel	3-8
Accumulator Safety	1-23	Battery Disconnect Switch	3-11
Avoid Hazardous Areas	1-24	Driving Controls (Wheel)	3-12
Training Seat	1-24		



CONTENTS

Driving Controls (Track)	3-13
Height Gauge Panel	3-14
Height Gauge Panel	3-15
Joystick Control	3-16
Joystick Control	3-17
Elevator Swing	3-18
Overhead Panel LH Side	3-19
Overhead Panel LH Side	3-20
Overhead Panel (Center)	3-21
Front & Side Wiper Switch	3-23
Cab Door Lock	3-23
COMFORT COMMAND Operator's Seat	3-24
Seat Suspension and Forward and Rearward Adjustment	3-24
Adjusting Left-Hand Armrest and Seat Back	3-25
Adjusting Right-Hand Armrest and Control ..	3-25
Console	3-25
Seat Belts	3-25
Driving or Transporting the Harvester on Public Roads	3-26
General Driving Precautions	3-26
Travel Speeds	3-26
Moving the Harvester	3-26
Using Park Brake	3-26
Parking the Harvester	3-26

OPERATING THE ENGINE

Starting the Engine	4-1
Using Booster Batteries	4-1
Cold Weather Warm-Up	4-2
Stopping the Engine	4-2

TRANSPORTING THE HARVESTER

Loading Procedure	5-1
Towing Harvester	5-2
Towing Procedure	5-2

FLUID RECOMMENDATIONS

John Deere Engine Coolant Requirements ..	6-1
John Deere Prediluted	6-1
Antifreeze/Summer Coolant	6-1
John Deere Cool-Gard	6-1
John Deere Antifreeze/Summer	6-1
Coolant Concentrate	6-1
Hydraulic Fluid (World)	6-2
Hydraulic Fluid	6-2
Diesel Fuel	6-2
Engine Break-in Oil (John Deere)	6-2
Diesel Engine Oil	6-2
Gear Oil—Pump Drive, Chopper Box and Basecutter	6-3
Gear Oil—Final Drive	6-3
Grease	6-3

MAINTENANCE

Check Fluid Levels	7-1
Inspect	7-1
Grease	7-1
Clean	7-1
Check	7-1
Break-In During the First 100 Hours	7-2
After the First 100 Hours	7-2
Service Your Harvester at Specified Intervals	7-2
Check Hour Meter Regularly	7-3
Use Correct Fuels and Lubricants	7-3
Prepare Harvester for Maintenance	7-3
Record Keeping	7-4
As Required	7-4
Every 10 Hours or Daily	7-4
Every 25 Hours	7-4
Every 50 Hours	7-5
Every 100 Hours	7-5
Every 250 Hours	7-5
Every 500 Hours	7-6
Every 1000 Hours or Seasonally	7-6
Every 1500 Hours or Seasonally	7-6
Every 2000 Hours (Severe Conditions — 20-22 hours a day of operation)	7-6
Every 2500 Hours	7-6
Every 3000 Hours	7-6

SERVICE

Harvester Component Locations	8-1
Harvester Service Point Locations	8-2
Harvester Grease Point Locations	8-3
Grease Point Locations	8-4
Checking Engine Oil Level	8-5
Engine Oil Capacity	8-5
Checking Engine Coolant Level	8-5
Checking Hydraulic Oil Level	8-5
Changing Engine Oil and Replacing Filter ...	8-6
Clean Primary Fuel Filter/Strainer	8-8
Drain the Fuel/Water Separator Bowl	8-9
Replacing Final Fuel Filter	8-9
Service Fuel Tank	8-11
Bleeding the Fuel System	8-12
Service Air Filter	8-13
Removing Engine Air Filters	8-13
Cleaning Primary Element	8-14
Inspect Filter	8-14
Replace Filter	8-15
Clean Pre-filter Screen	8-15
Check Pump Drive Oil Level	8-16
Change Pump Drive Oil	8-16
Pump Drive Oil Capacity	8-16
Prime Piston Pump System	8-16
Adding Hydraulic Oil	8-17
Changing Hydraulic Filters	8-18
Change Hydraulic Oil	8-19

<https://www.ebooklibonline.com>

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

<https://www.ebooklibonline.com>



CONTENTS

Check Final Drive Torque Hub Oil	8-20	Radiator	8-40
Change Final Drive Torque Hub Oil	8-20	Drain Cooling System	8-40
Final Drive Torque Hub Oil Type	8-20	Replace Thermostats and Gasket	8-40
Maximum Tire Pressures	8-21	Fill Cooling System	8-40
Tire Performance	8-21	Cooling System Capacity	8-40
Checking Tire Pressure	8-21	Flushing Cooling System	8-41
Tire Failure	8-21		
Proper Air Inflation	8-21	TORQUE SPECIFICATIONS	
Proper Fluid Inflation	8-21	Torque Specifications	9-1
Tire Overinflation	8-22	Torque for Grade 2 NC Weld Studs	9-2
Tire Underinflation	8-22	Metric Bolt and Cap Screw Torque Values	9-3
Radial Tires	8-22	Unified Inch Bolt and Cap Screw	
Sidehill Harvesting	8-22	Torque Values	9-4
Procedure for Changing a Tire	8-23	Suggested Torque Values And Clamp Loads	
Remove Wheel	8-23	For Grades 2, 5, & 8 Bolts	9-5
Demount and Mount Tire on Rim	8-23	Grade or Property Class Head Marking	
Install Wheel	8-23	for SI Bolts	9-5
Wheel Torque Values	8-23	Conversion Factors	9-5
Roller Lubrication	8-24	Straight O-Ring Boss Fittings	9-6
Idler Lubrication	8-24	Angled O-Ring Boss Fittings	9-6
Rear Axle Service	8-24	37° Flare Cone Fittings	9-6
Track Shoe Tightening	8-24	Hex Flats Recommended Rotation	9-7
Roller Torque	8-25	Four Bolt Flange Fittings	9-7
Track Shoe Inspection Torque	8-25	Metric Bolt Torque Chart	9-8
Track Alignment	8-25	SAE Bolt Torque Chart	9-8
Track Adjustment	8-25		
Service Air Conditioning System	8-26	SPECIFICATIONS	
Refrigerant Capacities	8-26	Harvester Capacities	10-1
Handling Batteries Carefully	8-27	Tire Inflation Pressure	10-2
Using Battery Charger	8-27	General Specifications	10-2
Replace Batteries	8-27	Harvester Dimensions	10-3
Battery Load Capacities	8-27	CHW3500 Chopper Harvester	10-3
Electrical Fuse and Relay Panel	8-27	High Capacity Elevator	10-3
Basecutter Blade Service	8-29	Direct Drive 5' Primary Extractor	10-3
Check Basecutter Oil Level	8-29	CHT3500 Chopper Harvester	10-3
Change Basecutter Oil	8-29	High Capacity Elevator	10-3
Basecutter Oil Capacity	8-29	Direct Drive 5' Primary Extractor	10-3
Lubricate Basecutter Motor Shaft and		John Deere 6081 Engine Specifications	10-4
Pinion Gear	8-30	John Deere 6081 Engine	10-5
Differential Chopper System	8-30	Preliminary Service Intervals	10-5
Slip Clutch Adjustment	8-30	Common Wear Parts	10-5
Differential Chopper Timing	8-31		
Check Chopper Gearbox Oil Level	8-32	TOOLS AND SUPPLIES	
Change Chopper Gearbox Oil	8-32	Daily Service Tool Kit (Part No. CB11431859)	11-1
Oil Capacity	8-32	Daily Service Tool Kit	11-2
Manual Billet Length Control	8-32	Recommended Supplies	11-3
Secondary Extractor Fan	8-33	CH3500 Specialty Tools and Part Numbers ..	11-5
Secondary Extractor Fan Maintenance	8-33		
Extractor Fan Balance	8-33	OIL AND FILTER CHANGE RECORDS	
5 Ft. Primary Extractor	8-34	Oil and Filter Change Records	12-1
Installing Primary Extractor Fan Blades	8-35		
Safety Start-Up After Changing Blades	8-35		
Installing The Hub To Motor Shaft	8-36		
Elevator Group	8-37		
Elevator Chain Adjustment	8-38		
Tilting The Cab	8-39		

All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

MACHINE IDENTIFICATION



CH3500 Identification View



cm023500114



SAFETY RECOMMENDATIONS

Service Safety

When a service person or mechanic is unfamiliar with all systems on this harvester, extra caution should be used when performing service work. A good working knowledge of the system and its components is important for removal or disassembly. The following is a list of basic precautions that should always be observed.

1. Make sure that you read and understand all warning plates and decals before lubricating or performing other maintenance.
2. Always wear protective glasses and footwear when working. In particular, wear safety glasses when pounding on any part of the machine or attachments with a hammer. Use protective clothing when welding. *Do Not* wear any loose fitting or torn clothing. Remove all rings from fingers before working on equipment.
3. Before starting work on the machine, disconnect battery and hang this *DO NOT START* sign in the operator's station.



IMPORTANT:

- Before climbing on machine, ensure that no one is working in or on it.
- Ensure that all operators blow the horn several times before starting the machine.
- Ensure that all persons anywhere near the machine know that when the horn blows, the machine is about to be started, and to move away as soon as possible.

Use the following Lock-Out Tag-Out Procedure:

- A. Parking Procedure
 1. Lower topper onto safety stop.
 2. Lower basecutter onto safety stops.
 3. Lower crop dividers
 4. Lower elevator

NOTE: In the event that topper and/or basecutter safety stops are not functioning properly, a 2" x 2" x 1/4" angle iron by the length required may be used as a temporary safety stop.

- B. Stop engine, remove ignition key, disengage and remove electrical system master disconnect switch; remove negative battery cables from battery, install lock out device and tag. Also tag steering wheel or track control.
- C. Before beginning any hydraulic repairs you must first relieve pressure from the hydraulic tank.

NOTE: In the event repairs need to be made to the basecutter lift and/or topper lift, the hydraulic pressure should be relieved by lowering the basecutter and/or topper.

4. If at all possible, make all repairs with the machine parked on level ground. Block the machine so it cannot roll. *Do Not* work on any machine that is supported only by lift jacks or a hoist.
5. Relieve all pressure in air, oil, or water systems before any lines, fittings, or related parts are disconnected or removed. Always make sure that all raised components and implements are correctly blocked. Be alert for possible pressure when disconnecting any device from a system that utilizes pressure.

▲ CAUTION ▲

Liquid escaping from a very small hole can be almost invisible. Use wood or cardboard, instead of your hand, when searching for suspected leaks.

6. Escaping fluid under pressure can have sufficient force to penetrate the skin. Therefore, before disconnecting any lines, be sure all pressure in the system is relieved. Before applying pressure, make sure all lines, fittings, and connections are tight and undamaged.



SAFETY RECOMMENDATIONS

7. If you are injured by escaping fluid under pressure, see a doctor at once. A serious infection or reaction may result if proper medical attention is not received immediately.

Note: Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Further information is available from Deere & Company Medical Department in Moline, Illinois. 1-800-822-8262

8. Lower all implements to the ground prior to working on the machine. If this cannot be done, make sure the implement is properly blocked to prevent it from dropping unexpectedly.
9. To avoid back injuries, use a hoist when lifting components that weigh over 23 kg (50 lb). When using a hoist, make sure all hooks are correctly positioned.
10. To avoid burns, be alert for hot parts located on the machine after it has stopped. Be particularly careful of hot fluids in lines, tubes, and components.
11. Be careful when removing cover plates. Gradually loosen the last two bolts or nuts located at the opposite ends of the cover or device. Carefully pry the cover loose to relieve any spring or other tension before removing it completely.
12. Be careful when removing filler caps, breathers, or plugs on the machine. Hold a rag over the cap or plug to prevent being sprayed or splashed by fluids under pressure.
13. Always use tools that are in good condition. Before performing any service, make sure you know how to use the proper tools.
14. Replace all fasteners with the same SAE or metric grade. Never substitute a softer part where a hardened part is used, conversely never substitute a harder part where a softer part is used.
15. Take precautions to prevent damage to wiring during removal. After reinstalling the wiring, double check to make sure it is was not damaged during removal or installation. Ensure that the wiring does not touch any hot, sharp, or moving parts after it is installed.

16. Ensure that all protective devices and guards are properly installed and are functioning correctly before starting any repairs. If a guard or shield must be removed to perform repair work, use extra caution while working.
17. *Do Not* operate the harvester if any rotating part is damaged or contacts any other part during operation. Any high-speed rotating component that has been damaged or altered must be checked for balance before operation.
18. Avoid working on equipment with the engine running. If it is absolutely necessary to make checks with the engine running, always use two men: one to operate the controls and the other to work where the operator can see him. The hydrostatic transmission must be in neutral, the braking system set, and all pertinent safety locks set.

Safety in Your Service Area

To maintain proper safety in the service area, the following should be observed:

1. Keep the service area clean and dry. Wet or oily floors are slippery and wet spots can be dangerous when working.
2. Make sure the service area is adequately ventilated. Periodically check the shop exhaust system for leakage.
3. Be sure all electrical outlets and tools are properly grounded.
4. Use adequate lighting for the job.
5. Be prepared if an accident or fire should occur. Know where the first aid kit and fire extinguishers are located. Know how to use both of them.



Suggest:

For more complete manuals. Please go to the home page.

<https://www.ebooklibonline.com>

If the above button click is invalid. Please download this document first, and then click the above link to download the complete manual.

Thank you so much for reading



SAFETY RECOMMENDATIONS

Safety when Cleaning or Storing

The following practices should be observed whenever you clean or store your equipment:

▲ CAUTION ▲
Engine exhaust gas is dangerous.

1. Always stop the engine before cleaning the harvester.
2. Keep the operator's station clean. *Do Not* use it for a storage area. Keep in mind that this harvester has a tilting cab.
3. Avoid a possible fire hazard. Keep the radiator, oil cooler, and engine closure screens free of foreign material.
4. Keep all equipment free of dirt and oil. In bad weather beware of snow, ice, and mud on ladders, steps, and in the operator's station.
5. When preparing the engine for storage, remember that inhibitors are volatile and therefore, dangerous. Seal and tape openings after adding the inhibitor. Keep the inhibitor container tightly closed when not in use.

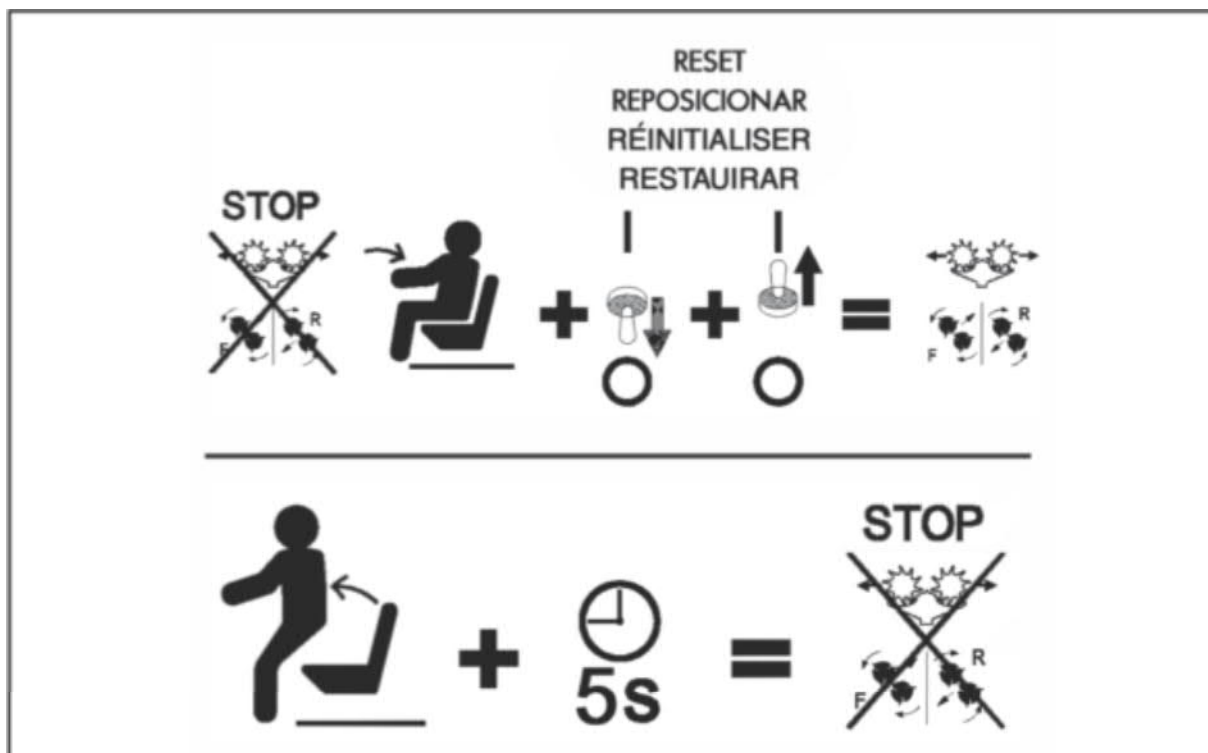
Safety Nevers

The following is a list of practices that you should *Never* use:

1. *Never* smoke while refueling or handling flammable materials.
2. *Never* refuel the engine while it is running. Use care during refueling when the engine is hot.
3. *Never* use open pans of gasoline or diesel fuel for cleaning parts. A good commercial, nonflammable solvent is preferred.
4. *Never* check the charging battery by placing metal objects across the posts. Provide adequate ventilation when charging batteries.
5. *Never* allow sparks or flames near the batteries. This includes smoking near the batteries.
6. *Never* check fuel, battery electrolyte, or coolant levels with an open flame nearby.
7. *Never* use an open flame to look for leaks anywhere on the equipment.
8. *Never* use an open flame as a light anywhere on or near the equipment.
9. *Never* adjust the fuel system while the machine is in motion.



SAFETY RECOMMENDATIONS



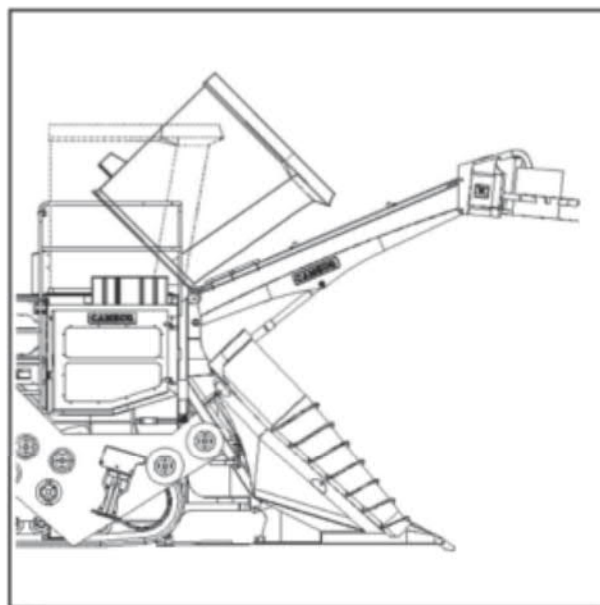
Seat Safety Shut-off

The operator must be seated and the reset switch activated to start harvesting functions.

If the operator leaves the seat for more than five seconds, harvesting functions will stop. To restart harvesting functions, the operator must return to the seated position and cycle the reset switch.

Tilting the Cab

The entire cab tilts forward, providing access to the engine for maintenance and repair by a qualified technician. The cab pivots at the front, raised by a single hydraulic cylinder. Make sure all bystanders are clear of the machine. (See the cab tilting procedure in the Service Section.)



<https://www.ebooklibonline.com>

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

<https://www.ebooklibonline.com>