SERVICE MANUAL

MegaCutter™ 512
MegaCutter™ 530
Tractor Mounted
Disc Mower-Conditioner

PIN YFZDG0007 and above

Part number 47937741
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SERVICE MANUAL

MegaCutter™ 512
MegaCutter™ 530 [YFZDG0007 -]

Contents

INTRODUCTION

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(*) See content for specific models

Foreword - Important notice regarding equipment servicing

All repair and maintenance work listed in this manual must be carried out only by qualified dealership personnel, strictly complying with the instructions given, and using, whenever possible, the special tools.

Anyone who performs repair and maintenance operations without complying with the procedures provided herein shall be responsible for any subsequent damages.

The manufacturer and all the organizations of its distribution chain, including - without limitation - national, regional, or local dealers, reject any responsibility for damages caused by parts and/or components not approved by the manufacturer, including those used for the servicing or repair of the product manufactured or marketed by the manufacturer. In any case, no warranty is given or attributed on the product manufactured or marketed by the manufacturer in case of damages caused by parts and/or components not approved by the manufacturer.

The manufacturer reserves the right to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions, and illustrative material herein are as accurate as known at time of publication but are subject to change without notice.

In case of questions, refer to your NEW HOLLAND Sales and Service Networks.

Safety rules

Personal safety

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

Throughout this manual you will find the signal words DANGER, WARNING, and CAUTION followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

Read and understand all the safety messages in this manual before you operate or service the machine.

DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury.

WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

Machine safety

NOTICE: *Notice indicates a situation that, if not avoided, could result in machine or property damage.*

Throughout this manual you will find the signal word Notice followed by special instructions to prevent machine or property damage. The word Notice is used to address practices not related to personal safety.

Information

NOTE: *Note indicates additional information that clarifies steps, procedures, or other information in this manual.*

Throughout this manual you will find the word Note followed by additional information about a step, procedure, or other information in the manual. The word Note is not intended to address personal safety or property damage.

Safety rules – Personal safety

⚠ General safety rules ⚠

Use caution when you operate the machine on slopes. Raised equipment, full tanks and other loads will change the center of gravity of the machine. The machine can tip or roll over when near ditches and embankments or uneven surfaces.

Never permit anyone other than the operator to ride on the machine.

Never operate the machine under the influence of alcohol or drugs, or while you are otherwise impaired.

When digging or using ground-engaging attachments, be aware of buried cables. Contact local utilities to determine the locations of services.

Pay attention to overhead power lines and hanging obstacles. High voltage lines may require significant clearance for safety.

Hydraulic oil or diesel fuel leaking under pressure can penetrate the skin, causing serious injury or infection.

- DO NOT use your hand to check for leaks. Use a piece of cardboard or paper.
- Stop the engine, remove the key, and relieve the pressure before you connect or disconnect fluid lines.
- Make sure that all components are in good condition. Tighten all connections before you start the engine or pressurize the system.
- If hydraulic fluid or diesel fuel penetrates the skin, seek medical attention immediately.
- Continuous long term contact with hydraulic fluid may cause skin cancer. Avoid long term contact and wash the skin promptly with soap and water.

Keep clear of moving parts. Loose clothing, jewelry, watches, long hair, and other loose or hanging items can entangle in moving parts.

Wear protective equipment when appropriate.

DO NOT attempt to remove material from any part of the machine while the machine is operating, any of the baler components are in motion, or while the tractor engine is running.

Before you operate the machine, install and securely close all of the machine guards and shields. Make sure that all the guards and that all the shields are in good condition. Never operate the machine with shields open or removed. Always close the access doors and/or access panels before operating the machine.

Make sure that no bystanders or pets are within the machine operating area. The machine and/or moving component on the machine can strike or crush bystanders or pets. DO NOT allow anyone to enter the work area.

Dirty or slippery steps, ladders, walkways, and platforms can cause falls. Make sure these surfaces remain clean and clear of debris.

A person or pet within the operating area of a machine can be struck or crushed by the machine or its equipment. DO NOT allow anyone to enter the work area.

Raised equipment and/or loads can fall unexpectedly and crush persons underneath. Never allow anyone to enter the area underneath raised equipment during operation.

Always keep windows, mirrors, all lighting, and Slow-Moving Vehicle (SMV) emblem clean to provide the best possible visibility while you operate the machine.

Operate controls only when seated in the operator’s seat, except for those controls expressly intended for use from other locations.

Before you leave the machine:

1. Park the machine on a firm, level surface.
2. Put all controls in neutral or park lock position.
3. Engage the parking brake. Use wheel chocks if required.
4. Lower all hydraulic equipment such as implements and headers.
5. Turn off the engine and remove the key.

⚠ WARNING

Some components may continue to run down after disengaging drive systems.
Make sure all drive systems are fully disengaged.
Failure to comply could result in death or serious injury.

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When, due to exceptional circumstances, you would decide to keep the engine running after you leave the operator's station, then you must follow these precautions:

1. Bring the engine to low idle speed.
2. Disengage all drive systems.
3. Shift the transmission into neutral.
4. Apply the parking brake.

⚠ Hydraulic system safety ⚠

Hydraulic oil or diesel fuel leaking under pressure can penetrate the skin, causing serious injury or infection.

- DO NOT use your hand to check for leaks. Use a piece of cardboard or paper.
- Stop engine, remove key and relieve the pressure before connecting or disconnecting fluid lines.
- Make sure all components are in good condition and tighten all connections before starting the engine or pressurizing the system.
- If hydraulic fluid or diesel fuel penetrates the skin, seek medical attention immediately.
- Continuous long-term contact with hydraulic fluid may cause skin cancer. Avoid long term contact and wash the skin promptly with soap and water.

The hydraulic hoses and fittings on your machine meet engineering specifications for the particular function. When replacing damaged, blown or worn hoses or fittings, use only manufacturer authorized service parts.

Care in hydraulic hose installation is a must:

- Make sure pressure is relieved before starting installation procedure.
- DO NOT kink or twist a hose, failure may occur.
- Properly route the hose.
- Remove air from the hydraulic system after installing any hydraulic component.

Periodically check hydraulic system for leaks or damage. check for:

- Leaks at hose fitting or in hose.
- Damaged hoses and/or fittings.
- Kinked, crushed, flattened, hard blistered, heat cracked, charred, twisted, soft or loose covered hoses.
- Corroded or damaged fittings.
- Leaking ports.
- Excessive dirt and debris around hoses and/or fittings.
- Damaged or missing hose retaining clamps, guards, shields, etc.

DO NOT stand on or use a hose as a step. DO NOT pull or apply external forces to the hose. The hose may fail and cause injury.

Keep all persons away from the working area. Mechanisms controlled by fluid power can become hazardous if a hose fails. Lifted mechanisms can fall to the ground, machine steering may fail, etc.

Stay clear of a pressurized hose assembly that has blown apart. Hose fittings can be thrown off at high speed and a loose hose can whip around with great force.

Hydraulic fluid can reach high temperatures. Allow fluid to cool before servicing the system.

Escaping fluid under pressure may form a mist or fine spray which can flash or explode upon contact with an ignition source

Vibration can reduce hose service life. Make sure all retaining clamps and/or devices are secured.

Environmental conditions can cause hose and fittings to deteriorate. Inspect hydraulic hoses periodically. Replace worn or damaged hoses and fittings.

⚠ General maintenance safety ⚠

Keep the area used for servicing the machine clean and dry. Clean up spilled fluids.

Only service the machine on a firm level surface.

Install guards and shields after you service the machine.

Close all access doors and install all panels after servicing the machine.

Do not attempt to clean, lubricate, clear obstructions, or make adjustments to the machine while it is in motion or while the engine is running.

Always make sure that working area is clear of tools, parts, other persons and pets before you start operating the machine.

Unsupported hydraulic cylinders can lose pressure and drop the equipment, causing a crushing hazard. Do not leave equipment in a raised position while parked or during service, unless the equipment is securely supported.

Jack or lift the machine only at jack or lift points indicated in this operator's manual.

Incorrect towing procedures can cause accidents. When towing a disabled machine follow the towing procedures in this operator's manual. Use only rigid tow bars.

Stop the engine, remove the key, and relieve pressure before disconnecting or connecting fluid lines.

Stop the engine and remove the key before disconnecting or connecting electrical connections.

Replace damaged or worn tubes, hoses, electrical wiring, etc.

Some electrical components and/or some hydraulic lines may become hot during operation. Take care when servicing such components. Allow the component surfaces to cool before handling the components or disconnecting hot components. Wear protective equipment when appropriate.

When welding on or in close proximity to this machine, follow the instructions in this operator's manual. See "Wheels and tires" safety rules that follow in this chapter.

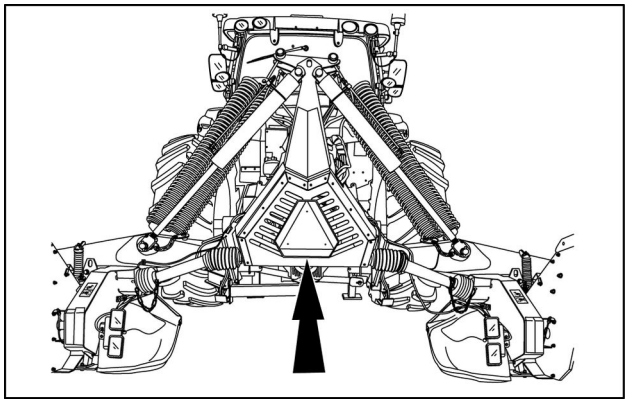
Always disconnect the battery before welding on the machine. Always wash your hands after handling battery components.

⚠ Driving on public roads and general transportation safety ⚠

Comply with local laws and regulations.

Use appropriate lighting to meet local regulations.

Make sure that the Slow-Moving Vehicle (SMV) reflector emblem is visible.



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Use safety chains for trailed equipment when provided with machine or equipment.

When transporting the machine on a transport trailer, make sure that you secure the machine properly for safe transport and that you cover the he SMV on the machine.

Be aware of overhead structures or power lines and make sure the machine and/or attachments can pass safely under.

Maintain complete control and machine stability by careful regulation of the travel speed at all times.

Slow down and signal before turning.

Pull over to allow faster traffic to pass.

Follow the correct towing procedure for equipment with or without brakes.

⚠ General battery safety ⚠

Always wear eye protection when working with batteries.

Do not create sparks or have open flame near battery.

Ventilate when charging or using in an enclosed area.

Disconnect all connections from the battery's negative **(–)** terminal first. Connect the removed battery's negative **(–)** terminal connections to the battery last.

When welding on the machine, disconnect both terminals of the battery.

Do not weld, grind, or smoke near a battery.

When using auxiliary batteries or connecting jumper cables to start the engine, use the procedure shown in the operator’s manual. Do not short across terminals.

Follow manufacturer’s instructions when storing and handling batteries.

Battery post, terminals, and related accessories contain lead and lead compounds. Wash hands after handling. This is a California Proposition 65 warning.

Battery acid causes burns. Batteries contain sulfuric acid. Avoid ingestion or contact with skin, eyes, or clothing.

Antidotes:

- External contact: Flush with water.
- Eyes contact: Flush with water for 15 minutes and seek medical attention immediately.
- Internal contact: Drink large quantities of water or milk. Do not induce vomiting. Seek medical attention immediately.

Keep the battery out of the reach of children and other unauthorized persons.

⚠ Power Take-Off (PTO) ⚠

Power Take-Off (PTO)-driven machinery can cause death or serious injury. Before working on or near the PTO shaft or servicing or clearing the driven machine, put the PTO lever in the disengage position, stop the engine, and remove the key.

Whenever a PTO is in operation, a guard must be in place to prevent death or injury to the operator or bystanders.

When doing stationary PTO work, keep clear of all moving parts and make sure appropriate guards are in place.

For correct PTO to tractor hitch geometry, always refer to the machine operator's manual.

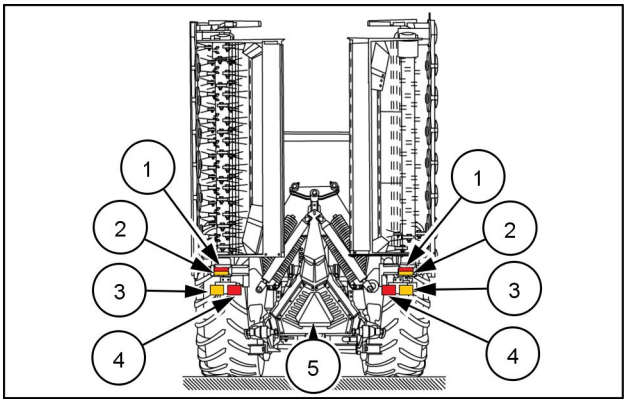
Never use a spline adaptor:

- Match the right tractor PTO spline and speed with the PTO driveshaft provided with an implement. This will assure proper geometry and operating speed.
- Never operate **540 RPM** implements at **1000 RPM**.
- Never operate **1000 RPM** implements at **540 RPM**.
- Use of PTO adaptors will void the warranty of the driveshaft, and the PTO drive train of the machine and implement.

⚠ Reflectors and warning lights ⚠

You must use flashing amber warning lights when you operate equipment on public roads.

Trailing lights and reflectors are located on the inside of both cutting units. The Slow-Moving Vehicle (SMV) is centered on the machine assembly.



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Trailing lights:

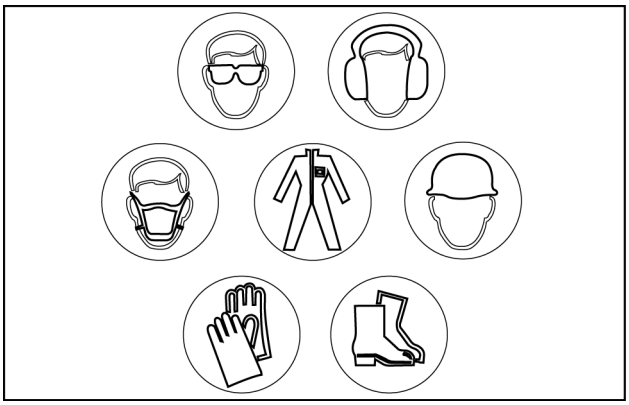
- **(3)** – Amber
- **(4)** – Red

Reflectors:

- **(1)** – Red
- **(2)** – Amber
- **(5)** – Slow-Moving Vehicle (SMV)

⚠ Personal Protective Equipment (PPE) ⚠

Wear Personal Protective Equipment (PPE) such as protective clothing, eye protection, hearing protection, dust mask, hard hat, heavy gloves, work boots, and/or any other PPE that provides for the safety and protection of the individual operating this equipment.



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⚠ Do Not Operate tag ⚠

⚠ WARNING

Maintenance hazard!
Before you start servicing the machine, always attach a DO NOT OPERATE warning tag to the machine in a visible area.
Failure to comply could result in death or serious injury.

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Before you start servicing the machine, attach a 'Do Not Operate' warning tag to the machine in an area that will be visible.

1. Obtain DO NOT OPERATE tags from your NEW HOLLAND Service Parts Dealer.
2. Attach a DO NOT OPERATE tag to the machine in an area that is clearly visible whenever the machine is not operating properly and/or requires service.
3. Complete the DO NOT OPERATE tag information for the reason or maintenance hazard for the DO NOT OPERATE tag that you are attaching. Describe the malfunction or service required. Validate the reason for attaching the DO NOT OPERATE tag by signing your name in the designated area on the DO NOT OPERATE tag.
4. Only the person who signed and attached the DO NOT OPERATE tag should remove the DO NOT OPERATE tag, after validating the repairs or services are complete.

⚠ Hazardous chemicals ⚠

If you are exposed to or come in contact with hazardous chemicals you can be seriously injured. The fluids, lubricants, paints, adhesives, coolant, etc. required for the function of your machine can be hazardous. They may be attractive and harmful to domestic animals as well as humans.

Material Safety Data Sheets (MSDS) provide information about the chemical substances within a product, safe handling and storage procedures, first aid measures and procedures to be taken in the event of a spill or accidental release. MSDS are available from your dealer.

Before you service your machine check the MSDS for each lubricant, fluid, etc. used in this machine. This information indicates the associated risks and will help you service the machine safely. Follow the information in the MSDS, on manufacturer containers, as well as the information in this manual when servicing the machine.

Dispose of all fluids, filters, and containers in an environmentally safe manner according to local laws and regulations. Check with local environmental and recycling centers or your dealer for correct disposal information.

Store fluids and filters in accordance with local laws and regulations. Use only appropriate containers for the storage of chemicals or petrochemical substances.

Keep out of reach or children or other unauthorized persons.

Additional precautions are required for applied chemicals. Obtain complete information from the manufacturer or distributor of the chemicals before using them.

⚠ Utility safety ⚠

Make sure that the machine has sufficient clearance to pass in all directions. Pay special attention to overhead power lines and hanging obstacles. High voltage lines may require significant clearance for safety. Contact local authorities or utilities to obtain safe clearance distances from high voltage power lines.

Retract raised or extended components, if necessary. Remove or lower radio antennas or other accessories. Should a contact between the machine and an electric power source occur, the following precautions must be taken:

- Stop the machine movement immediately.
- Apply the parking brake, stop the engine, and remove the key.
- Check if you can safely leave the cab or your actual position without contact with electrical wires. If not, stay in your position and call for help. If you can leave your position without touching lines, jump clear of the machine to make sure that you do not make contact with the ground and the machine at the same time.

- Do not permit anyone to touch the machine until power has been shut off to the power lines.

⚠ Electrical storm safety ⚠

Do not operate the machine during an electrical storm.

If you are on the ground or operating a machine during an electrical storm;

- Stay away from machinery and equipment.
- Seek shelter in a permanent, protected structure.
- Remain in the cab during operation if an electrical storm strikes.
- Do not leave the cab or operator’s platform.
- Do not make contact with the ground or objects outside the machine.

Safety rules - Ecology and the environment

Soil, air, and water quality is important for all industries and life in general. When legislation does not yet rule the treatment of some of the substances that advanced technology requires, sound judgment should govern the use and disposal of products of a chemical and petrochemical nature.

Familiarize yourself with the relative legislation applicable to your country, and make sure that you understand this legislation. Where no legislation exists, obtain information from suppliers of oils, filters, batteries, fuels, anti-freeze, cleaning agents, etc., with regard to the effect of these substances on man and nature and how to safely store, use, and dispose of these substances.

Helpful hints

- Avoid the use of cans or other inappropriate pressurized fuel delivery systems to fill tanks. Such delivery systems may cause considerable spillage.
- In general, avoid skin contact with all fuels, oils, acids, solvents, etc. Most of these products contain substances that may be harmful to your health.
- Modern oils contain additives. Do not burn contaminated fuels and or waste oils in ordinary heating systems.
- Avoid spillage when you drain fluids such as used engine coolant mixtures, engine oil, hydraulic fluid, brake fluid, etc. Do not mix drained brake fluids or fuels with lubricants. Store all drained fluids safely until you can dispose of the fluids in a proper way that complies with all local legislation and available resources.
- Do not allow coolant mixtures to get into the soil. Collect and dispose of coolant mixtures properly.
- The air-conditioning system contains gases that should not be released into the atmosphere. Consult an air-conditioning specialist or use a special extractor to recharge the system properly.
- Repair any leaks or defects in the engine cooling system or hydraulic system immediately.
- Do not increase the pressure in a pressurized circuit as this may lead to a component failure.
- Protect hoses during welding. Penetrating weld splatter may burn a hole or weaken hoses, allowing the loss of oils, coolant, etc.

Battery recycling

Batteries and electric accumulators contain several substances that can have a harmful effect on the environment if the batteries are not properly recycled after use. Improper disposal of batteries can contaminate the soil, groundwater, and waterways. NEW HOLLAND strongly recommends that you return all used batteries to a NEW HOLLAND dealer, who will dispose of the used batteries or recycle the used batteries properly. In some countries, this is a legal requirement.

Mandatory battery recycling

NOTE: *The following requirements are mandatory in Brazil.*

Batteries are made of lead plates and a sulfuric acid solution. Because batteries contain heavy metals such as lead, CONAMA Resolution 401/2008 requires you to return all used batteries to the battery dealer when you replace any batteries. Do not dispose of batteries in your household garbage.

Points of sale are obliged to:

- Accept the return of your used batteries
- Store the returned batteries in a suitable location
- Send the returned batteries to the battery manufacturer for recycling

Torque - Nominal tightening torques for normal assembly

NOTE: *In the metric tables, nominal sizes M4 through M8 hardware torque specifications are shown as a Newton meters (pound-inches) numerical value.*
Nominal sizes M10 through M24 hardware torque specifications are shown as a Newton meters (pound-feet) numerical value.

Metric hex head (non-flange) hardware

Plain (PLN) – an unplated hardware finish with residual manufacturing oils
Zinc-dichromate (ZND) – a yellow colored chemical plating formula yellow applied to the hardware

Nominal size	Class (CL) 8.8 bolt and Class (CL) 8 nut	Class (CL) 10.9 bolt and Class (CL) 10 nut	Locknut CL 8 w/CL 8.8 bolt	Locknut CL 10 w/CL 10.9 bolt
	PLN and ZND	PLN and ZND	ZND	ZND
	N·m (lb in)	N·m (lb in)	N·m (lb in)	N·m (lb in)
M4	3.5 (31)	5.0 (44)	1.4 (13)	2.8 (25)
M5	7.0 (62)	10 (88)	2.9 (26)	5.5 (49)
M6	11.8 (104)	17 (150)	4.9 (43)	9.4 (83)
M8	28.8 (255)	41.3 (366)	11.9 (105)	23 (204)
	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)
M10	57 (42)	82 (60)	24 (17)	45 (33)
M12	100 (74)	143 (105)	41 (30)	79 (38)
M14	159 (117)	227 (168)	66 (48)	125 (92)
M16	248 (183)	354 (261)	102 (75)	195 (144)
M18	352 (260)	487 (359)	145 (107)	268 (198)
M20	500 (369)	690 (509)	206 (152)	380 (280)
M24	865 (638)	1195 (882)	357 (263)	657 (485)

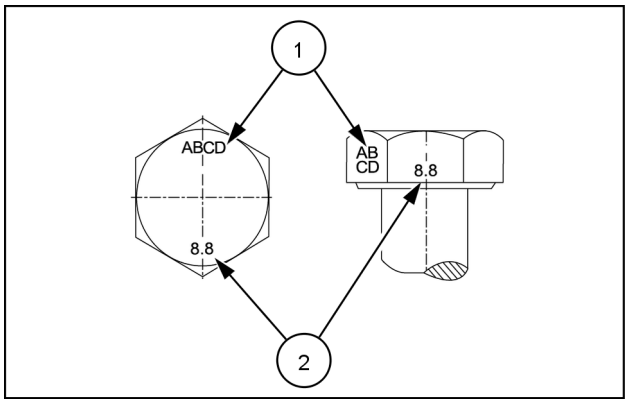
Metric flange head hardware

Plain (PLN) – an unplated hardware finish with residual manufacturing oils
Zinc-dichromate (ZND) – a yellow colored chemical plating formula yellow applied to the hardware

Nominal size	Class (CL) 8.8 bolt and Class (CL) 8 nut	Class (CL) 10.9 bolt and Class (CL) 10 nut	Flange locknut CL 8 w/CL 8.8 bolt	Flange locknut CL 10 w/CL 10.9 bolt
	PLN and ZND	PLN and ZND	ZND	ZND
	N·m (lb in)	N·m (lb in)	N·m (lb in)	N·m (lb in)
M4	3.8 (34)	5.5 (49)	4.2 (37)	6.1 (54)
M5	7.7 (68)	11 (97)	8.5 (75)	12 (106)
M6	13 (115)	18.7 (166)	14.3 (127)	20.6 (182)
M8	31.7 (281)	45.5 (403)	35 (310)	50 (443)
	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)
M10	63 (47)	90 (66)	69 (51)	99 (73)
M12	110 (81)	157 (116)	121 (89)	173 (128)
M14	175 (129)	250 (184)	193 (142)	275 (202)
M16	272 (201)	389 (287)	299 (221)	428 (316)
M18	387 (286)	535 (395)	426 (315)	589 (435)
M20	550 (406)	759 (560)	605 (447)	835 (616)
M24	951 (702)	1315 (970)	1046 (772)	1447 (1067)

Identification markings

Metric hex head, flange hex head and carriage bolts, Classes (CL) 5.6 and upward



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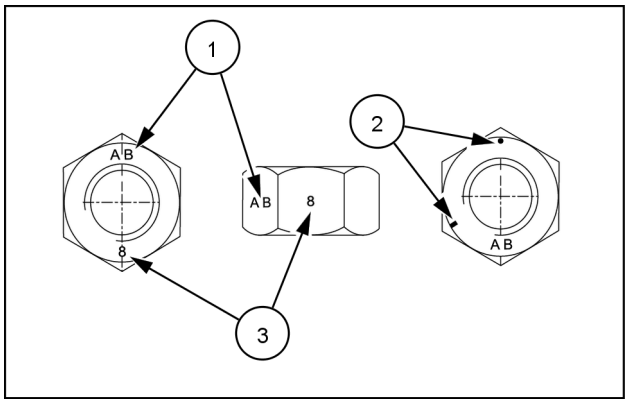
Metric bolt identification markings

1. Manufacturer's identification
2. Property class

Metric hex nuts and locknuts, Classes (CL) 05 and upward



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Metric hex nut identification markings

- **(1)** – Manufacturer's identification
- **(3)** – Property class
- **(2)** – Clockwise type markings indicate property class and may include manufacturer identification (if applied), Example: property marks **240 °** apart (shown) at the eight o'clock position indicate a Class 8 property, and marks **300 °** apart at the ten o'clock position indicate a Class 10 property.

NOTE: *In the Imperial units tables, the nominal sizes,* ***1/4 (0.25) in*** *(inch) and* ***5/16 (0.3125) in*** *(inch) hardware torque specifications are shown as a Newton meters (pound-inches) numerical value.*
Nominal sizes ***3/8 (0.375) in*** *(inch) through* ***1 (1.0) in*** *(inch) hardware torque specifications are shown as a Newton meters (pound-feet) numerical value.*

Inch hex head (non-flange) hardware

Plain (PLN) – an unplated hardware finish with residual manufacturing oils
Zinc-dichromate (ZND) – a yellow colored chemical plating formula yellow applied to the hardware

Nominal size	SAE Grade (GR) 5 bolt and nut	SAE Grade (GR) 8 bolt and nut	Locknut GR B w/ GR 5 bolt	Locknut GR C w/ GR 8 bolt
	PLN and ZND	PLN and ZND	ZND	ZND
	N·m (lb in)	N·m (lb in)	N·m (lb in)	N·m (lb in)
1/4 (0.25) in	13 (115)	18 (159)	7.2 (64)	10 (89)
5/16 (0.3125) in	27 (239)	38 (336)	14.9 (132)	21 (186)
	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)
3/8 (0.375) in	47 (35)	67 (49)	26 (19)	37 (27)
7/16 (0.4375) in	76 (56)	107 (79)	42 (31)	59 (44)
1/2 (0.50) in	116 (85)	164 (121)	64 (47)	90 (67)
9/16 (0.5625) in	167 (123)	236 (174)	92 (68)	130 (96)
5/8 (0.625) in	231 (170)	326 (240)	127 (94)	179 (132)
3/4 (0.75) in	410 (302)	578 (426)	226 (166)	318 (234)
7/8 (0.875) in	660 (486)	931 (687)	363 (267)	512 (378)
1 (1.0) in	989 (729)	1396 (1030)	544 (401)	768 (567)

Inch flange head hardware

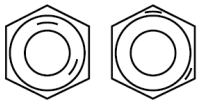
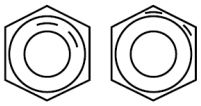
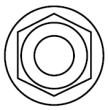
Plain (PLN) – an unplated hardware finish with residual manufacturing oils
Zinc-dichromate (ZND) – a yellow colored chemical plating formula yellow applied to the hardware

Nominal size	SAE Grade (GR) 5 bolt and nut	SAE Grade (GR) 8 bolt and nut	Flange locknut GR F w/ GR 5 bolt	Flange locknut GR G w/ GR 8 bolt
	PLN and ZND	PLN and ZND	ZND	ZND
	N·m (lb in)	N·m (lb in)	N·m (lb in)	N·m (lb in)
1/4 (0.25) in	14 (124)	20 (177)	15.4 (136)	22 (195)
5/16 (0.3125) in	29 (257)	42 (372)	32 (283)	46 (407)
	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)	N·m (lb ft)
3/8 (0.375) in	52 (38)	74 (54)	57 (42)	81 (9)
7/16 (0.4375) in	84 (62)	118 (87)	92 (68)	130 (96)
1/2 (0.50) in	127 (94)	180 (133)	140 (103)	198 (146)
9/16 (0.5625) in	184 (136)	259 (191)	202 (150)	285 (210)
5/8 (0.625) in	254 (187)	358 (264)	279 (206)	394 (290)
3/4 (0.75) in	450 (332)	636 (469)	495 (365)	700 (516)
7/8 (0.875) in	725 (535)	1024 (755)	798 (589)	1126 (831)
1 (1.0) in	1088 (802)	1536 (1133)	1197 (882)	1690 (1246)

Identification marking

Grades of inch bolts and free-spinning nuts

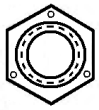
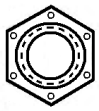
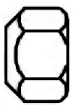
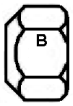
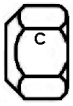
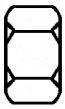
SAE (J995) bolt head and nut grade identification

Grade identification marking	Grade Marking description
	**Grade 2** No line marks
	**Grade 5** Three line marks
	**Grade 8** Six line marks
	**Grade 2** No circumferential line marks
	**Grade 5** Two circumferential line marks located 120° apart
	**Grade 2** Two circumferential line marks located 60° apart
	**Grade 2** No circumferential line marks
	**Grade 5** Two circumferential line marks located 120° apart
	**Grade 8** Two circumferential line marks located 60° apart

Grades of inch prevailing torque locknuts, all metal (three common marking methods)

On prevailing torque locknuts, the grade of nut is identified by one of three different sets of markings that denote the strength level and manufacturer.

Common prevailing torque locknut grade identification markings

Grade identification marking	Grade Marking description
	**Grade A** No marks
	**Grade B (hex nut) and Grade F (flange nut)** Three raised or indented dot marks (Marks do not have to be in corners.)
	**Grade C (hex nut) and Grade F (flange nut)** Six raised or indented dot marks (Marks do not have to be in corners.)
	**Grade A** No letter mark on side flat
	**Grade B** Letter B on side flat
	**Grade C** Letter C on side flat
	**Grade A** No notches
	**Grade B** One circumferential notch on all six corners
	**Grade C** Two circumferential notches on all six corners

Basic instructions - Shop and assembly

Shimming

For each adjustment operation, select adjusting shims and measure the adjusting shims individually using a micrometer, then add up the recorded values. Do not rely on measuring the entire shimming set, which may be incorrect, or the rated value shown on each shim.

Rotating shaft seals

For correct rotating shaft seal installation, proceed as follows:

1. Before assembly, allow the seal to soak in the oil it will be sealing for at least thirty minutes.
2. Thoroughly clean the shaft and check that the working surface on the shaft is not damaged.
3. Position the sealing lip facing the fluid.

   NOTE: *With hydrodynamic lips, take into consideration the shaft rotation direction and position the grooves so that they will move the fluid towards the inner side of the seal.*
4. Coat the sealing lip with a thin layer of lubricant (use oil rather than grease). Fill the gap between the sealing lip and the dust lip on double lip seals with grease.
5. Insert the seal in its seat and press down using a flat punch or seal installation tool. Do not tap the seal with a hammer or mallet.
6. While you insert the seal, check that the seal is perpendicular to the seat. When the seal settles, make sure that the seal makes contact with the thrust element, if required.
7. To prevent damage to the seal lip on the shaft, position a protective guard during installation operations.

O-ring seals

Lubricate the O-ring seals before you insert them in the seats. This will prevent the O-ring seals from overturning and twisting, which would jeopardize sealing efficiency.

Sealing compounds

Apply a sealing compound on the mating surfaces when specified by the procedure. Before you apply the sealing compound, prepare the surfaces as directed by the product container.

Spare parts

Only use CNH Original Parts or NEW HOLLAND Original Parts.

Only genuine spare parts guarantee the same quality, duration, and safety as original parts, as they are the same parts that are assembled during standard production. Only CNH Original Parts or NEW HOLLAND Original Parts can offer this guarantee.

When ordering spare parts, always provide the following information:

- Machine model (commercial name) and Product Identification Number (PIN)
- Part number of the ordered part, which can be found in the parts catalog

Protecting the electronic and/or electrical systems during charging and welding

To avoid damage to the electronic and/or electrical systems, always observe the following practices:

1. Never make or break any of the charging circuit connections when the engine is running, including the battery connections.
2. Never short any of the charging components to ground.
3. Always disconnect the ground cable from the battery before arc welding on the machine or on any machine attachment.
   - Position the welder ground clamp as close to the welding area as possible.
   - If you weld in close proximity to a computer module, then you should remove the module from the machine.
   - Never allow welding cables to lie on, near, or across any electrical wiring or electronic component while you weld.
4. Always disconnect the negative cable from the battery when charging the battery in the machine with a battery charger.

   NOTICE: *If you must weld on the unit, you must disconnect the battery ground cable from the machine battery. The electronic monitoring system and charging system will be damaged if this is not done.*
5. Remove the battery ground cable. Reconnect the cable when you complete welding.

⚠ WARNING

Battery acid causes burns. Batteries contain sulfuric acid.
Avoid contact with skin, eyes or clothing. Antidote (external): Flush with water. Antidote (eyes): flush with water for 15 minutes and seek medical attention immediately. Antidote (internal): Drink large quantities of water or milk. Do not induce vomiting. Seek medical attention immediately.
Failure to comply could result in death or serious injury.

W0111A

Special tools

The special tools that NEW HOLLAND suggests and illustrate in this manual have been specifically researched and designed for use with NEW HOLLAND machines. The special tools are essential for reliable repair operations. The special tools are accurately built and rigorously tested to offer efficient and long-lasting operation.

By using these tools, repair personnel will benefit from:

- Operating in optimal technical conditions
- Obtaining the best results
- Saving time and effort
- Working in safe conditions

General specification – MegaCutter™ 512

MegaCutter™ 512	

Overall width	**4615 mm** (**181.69 in**)
Overall length	**1700 mm** (**66.93 in**)
Height	**1450 mm** (**57.09 in**)
Ground clearance (transport)	**400 mm** (**15.75 in**)
Weight	**1350 kg** (**2976 lb**)
Tractor requirements	
MegaCutter™ 512 – Stand alone minimum power requirement	**70 kW** (**95 Hp**)
MegaCutter™ 512 and **MegaCutter™** 530 – Combined minimum power requirement	**154 kW** (**210 Hp**)
Hydraulic system	Hydraulic system max. **50 l/min** (**13.21 US gpm**) **21000 kPa** (**3045.8 psi**)
Input speed	**1000 RPM**
Driveline	
Input Power Take-Off (PTO)	Standard is **1-3/8 in** front 6-spline; **1000 RPM** ***NOTE:*** *A **1-3/8 in** 21–spline yoke is available.*
Drive protection	Main driveline – Slip clutch with overrunning clutch
Cutterbar drive	Secondary PTO
Flail rotor conditioner	3 individual V-belts with spring loaded idler
Cutting units	
Cutting width	**3.6 m** (**11 ft 10 in**)
Flotation	Vertical and lateral springs
Windrow width	**914 - 1830 mm** (**36 - 72 in**)

Disc cutterbar	
Type	Enclosed gear drive
Drive	Secondary PTO through a bevel gearbox
Number of discs	9
Knives per disc	2
Disc cutting diameter	**500 mm** (**19.7 in**)
Disc drive	Spur gear drive in fully welded common sump
Disc speed	**3000 RPM**
Cutting height approximate	**20 - 55 mm** (**0.8 - 2.2 in**)
Cutting height with high stubble shoes	**58 - 115 mm** (**2.25 - 4.5 in**)
Knife speed	**290 km/h** (**180 mph**)
Flail rotor conditioner	
Type	Y-shaped semi-swing flails
Drive	3 individual V-belts and spur gears
Length	**2286 mm** (**90 in**)
Diameter	**264 mm** (**10.38 in**)
Speed	**900 RPM** Standard, **600 RPM** Optional
Ground speed	
Field	Up to **22.5 km/h** (**14 mph**)
Road	NA

Cutting capacity [1]								
Ground speed	**11.3 km/h** (**7 mph**)	**13 km/h** (**8 mph**)	**14.5 km/h** (**9 mph**)	**16 km/h** (**10 mph**)	**17.7 km/h** (**11 mph**)	**19.3 km/h** (**12 mph**)	**21 km/h** (**13 mph**)	**22.5 km/h** (**14 mph**)
Field coverage	**8.5 Ha/hr** (**21 Ac/hr**)	**9.7 Ha/hr** (**24 Ac/hr**)	**11 Ha/hr** (**27 Ac/hr**)	**12 Ha/hr** (**30 Ac/hr**)	**13.4 Ha/hr** (**33 Ac/hr**)	**15 Ha/hr** (**37 Ac/hr**)	**16.2 Ha/hr** (**40 Ac/hr**)	**17.4 Ha/hr** (**43 Ac/hr**)

[1] - (Calculated at **85 %** efficiency).

General specification – MegaCutter™ 530

MegaCutter™ 530 [YFZDG0007 -]	

Overall width	
Transport position	**3 m** (**9.84 ft**)
Field position	**9.49 m** (**31.14 ft**)
Cutting unit – Length	**2.89 m** (**9.5 ft**)
Cutting unit – Height	
Transport position	Minimum **4 - 4.3 m** (**13.12 - 14.11 ft**)
Cutting position	**2.6 m** (**8.53 ft**)
Weight	**3216 kg** (**7090 lb**)
Three-point hitch	Category 3
Tractor requirement	
MegaCutter™ 512 and **MegaCutter™** 530 – Combined minimum power requirement	**155 kW** (**210 Hp**)
Hydraulic system requirement	Hydraulic system: **15000 - 20000 kPa** (**2176 - 2901 psi**) **25 - 50 l/min** (**6.6 - 13.21 US gpm**)
Driveline	
Input Power Take-Off (PTO)	**1–3/8 in** 21-spline **1000 RPM**
Drive protection	PTO shaft with slip clutch and overrunning clutch
Cutting width (including front-mounted unit)	**9 m** (**29.53 ft**)
Flotation	Vertical and lateral springs
Cutting speed	Up to **14.5 km/h** (**9 mph**)
Noise level	**85 dB**

Disc cutterbar	
Drive	Secondary PTO through a bevel gearbox
Number of discs	8 per cutting unit
Knives per disc	2
Disc cutting speed	**3000 RPM**
Knife tip speed	**290 km/h** (**180 mph**)
Cutting height, approximate	**20 - 100 mm** (**0.79 - 3.94 in**)* (With high-stubble shoes)
Cutting height, approximate with high stubble shoes	**100 mm** (**3.94 in**)
Flail rotor conditioner	
Type	Y-shaped flails
Drive	3 individual V-belts and spur gears

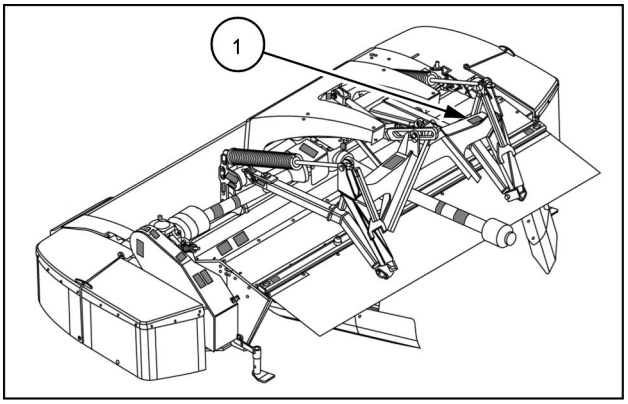
Capacities

Location	Capacity	Lubricant	Grade
Main drive gearbox	**1.1 l** (**1.2 US qt**)	**TUTELA HYPOIDE EP GEAR LUBE SAE 80W-90**	GL5
Bevel gearbox	**1 l** (**1.1 US qt**)	**TUTELA HYPOIDE EP GEAR LUBE SAE 80W-90**	GL5
Cutterbar	**4.6 l** (**4.86 US qt**)	**BRAD PENN® 'CLASSIC' GL-4 SAE 80W-90 GEAR OIL**	GL4
Lubrication fittings	—	**TUTELA MULTI-PURPOSE EP GREASE 251H, GR-9**	—

Product identification – MegaCutter™ 512

MegaCutter™ 512	

The Product Identification Number (PIN) plate **(1)** on the **MegaCutter™** 512 is located to the right-hand side of the main frame at the rear of the cutting unit.



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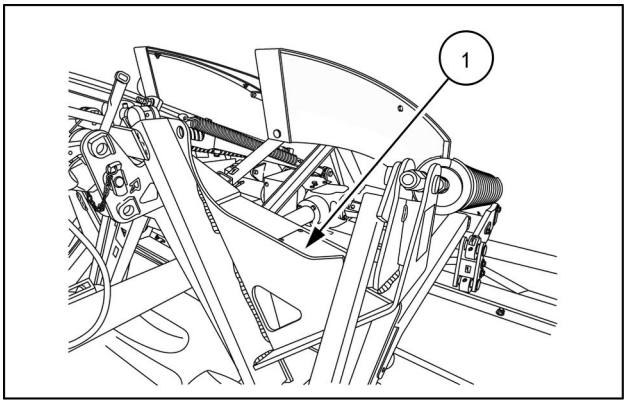

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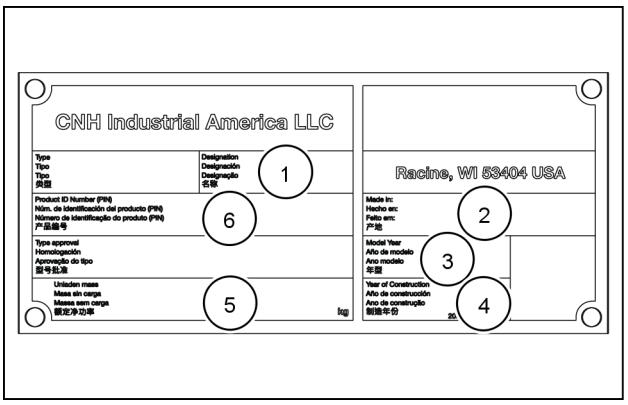
- **(1)** Model
- **(2)** Country of origin
- **(3)** Model year
- **(4)** Year of construction
- **(5)** Weight
- **(6)** PIN



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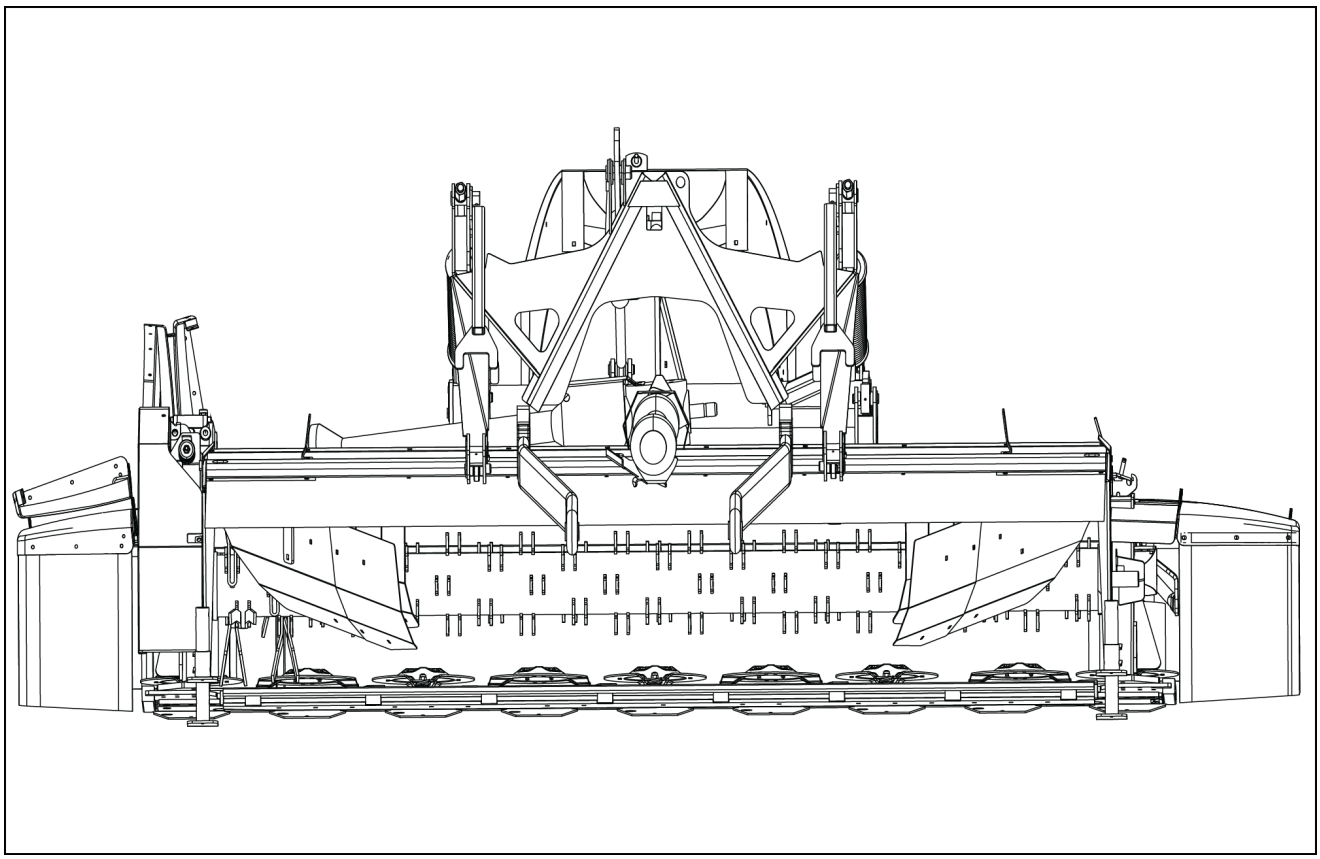
Product identification – Machine orientation – MegaCutter™ 512

MegaCutter™ 512	

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



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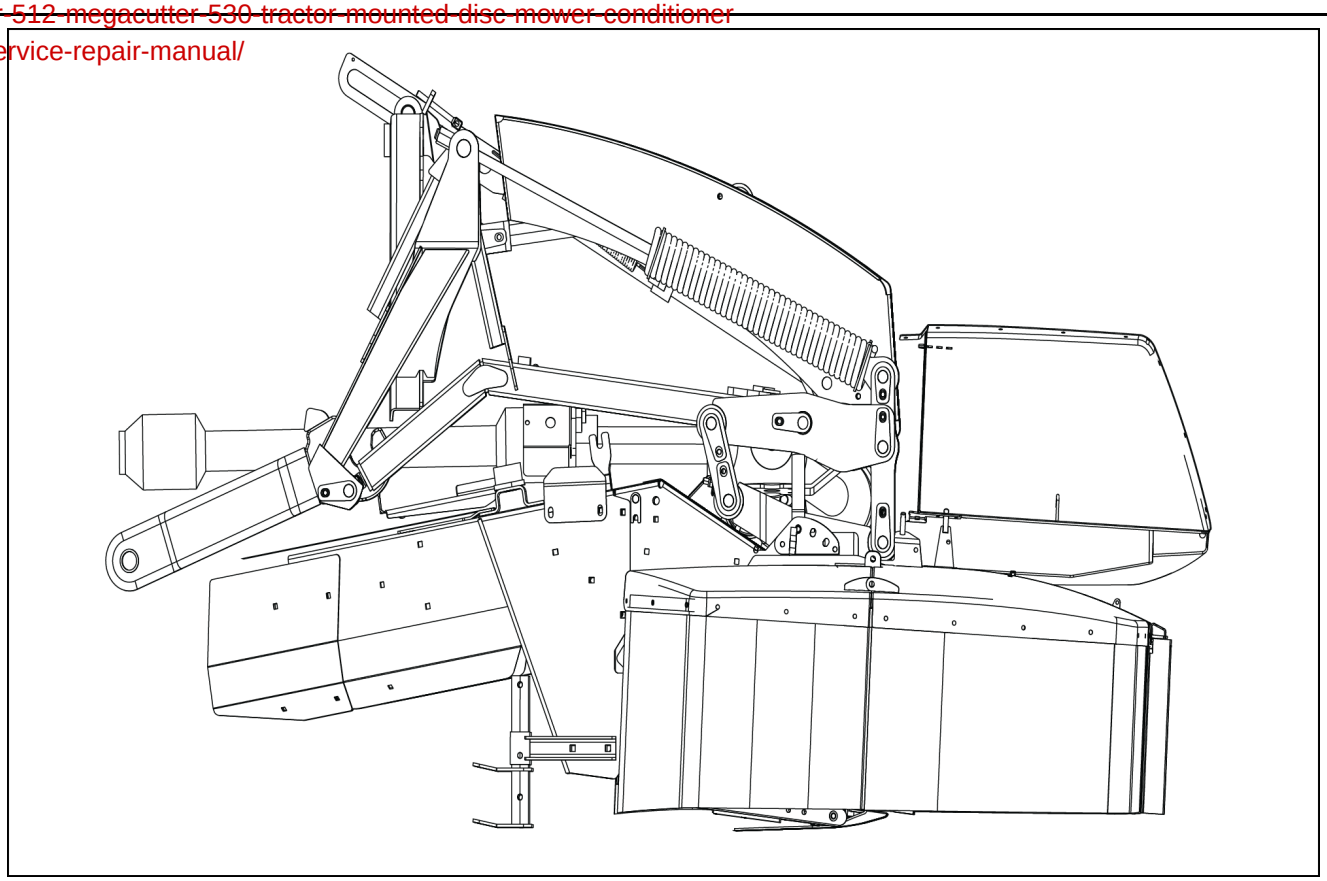
Rear view



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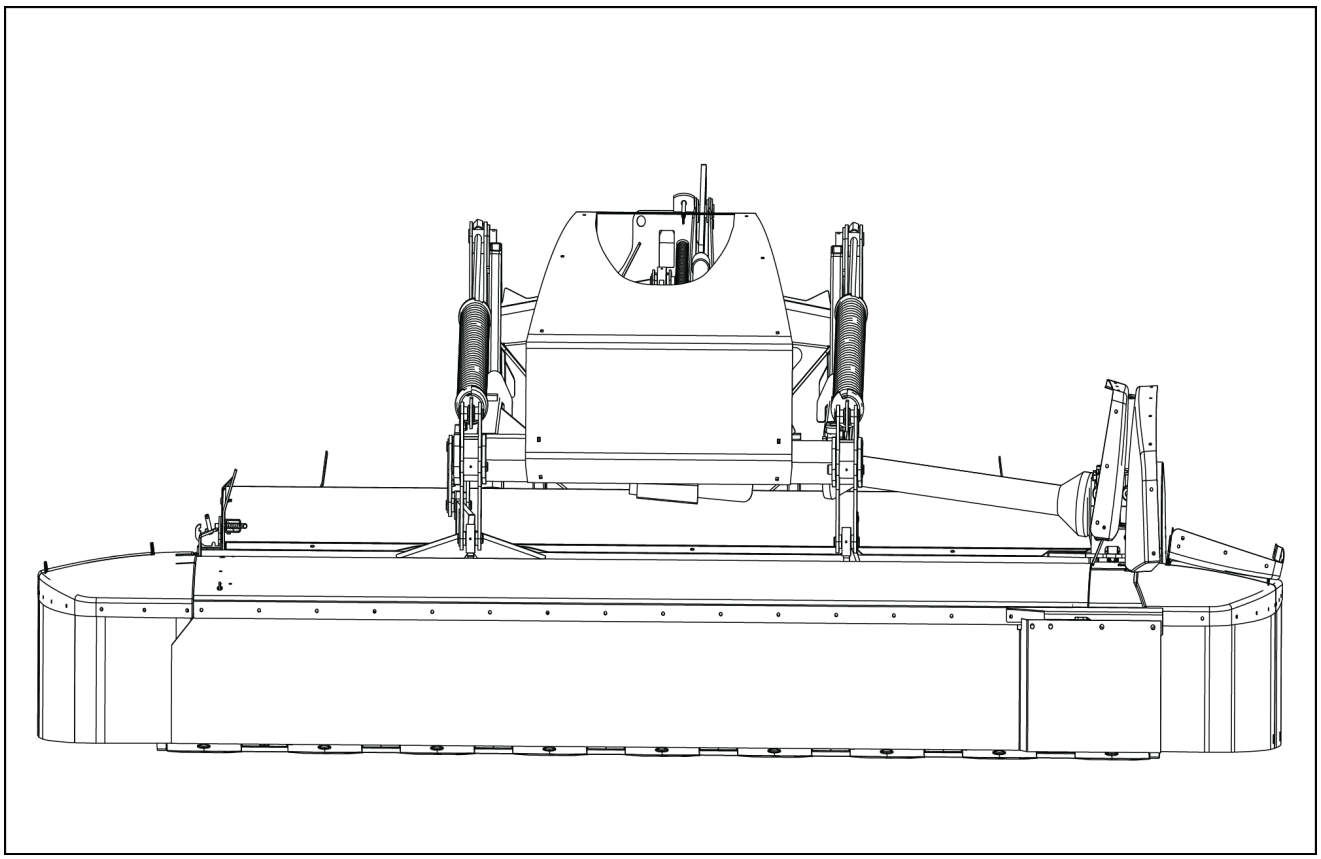
Right-hand view



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Front view