

Product: Flexi-Coil 5000 Air Drill Service Repair Manual

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5000 Air Drill

Models AD.A and AD.B

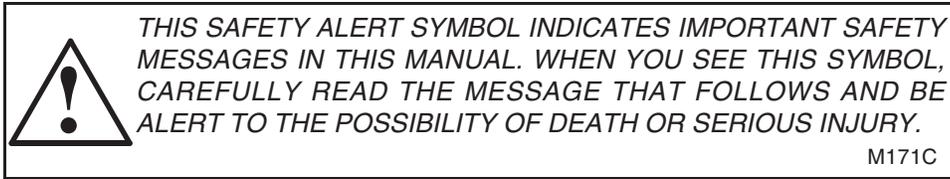
Service Manual

Sample of manual. Download All 232 pages at:

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DR-015V2

1/05



If Safety Decals on this machine use the words **Danger, Warning or Caution**, which are defined as follows:

- **DANGER:** Indicates an immediate hazardous situation that, if not avoided, will result in death or serious injury. The color associated with Danger is RED.
- **WARNING:** Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. The color associated with Warning is ORANGE.
- **CAUTION:** Indicates an 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.

If Safety Decals on this machine are ISO two panel Pictorial, decals are defined as follows:

- The first panel indicates the nature of the hazard.
- The second panel indicates the appropriate avoidance of the hazard.
- Background color is YELLOW.
- Prohibition symbols such as   and  if used, are RED.



WARNING

IMPROPER OPERATION OF THIS MACHINE CAN CAUSE DEATH OR SERIOUS INJURY. BEFORE USING THIS MACHINE, MAKE CERTAIN THAT EVERY OPERATOR:

- Is instructed in safe and proper use of the machine.
- Reads and understands the Manual(s) pertaining to the machine.
- Reads and understands ALL Safety Decals on the machine.
- Clears the area of other persons.
- Learns and practices safe use of machine controls in a safe, clear area before operating this machine on a job site.

It is your responsibility to observe pertinent laws and regulations and follow CNH America LLC instructions on machine operation and maintenance.

5000 AIR DRILL SERVICE MANUAL MODELS AD.A AND AD.B DR-015V2

Starting Serial No. AD. A0000-K038301
AD. B0000- S068601
Y4S003001 - Y~

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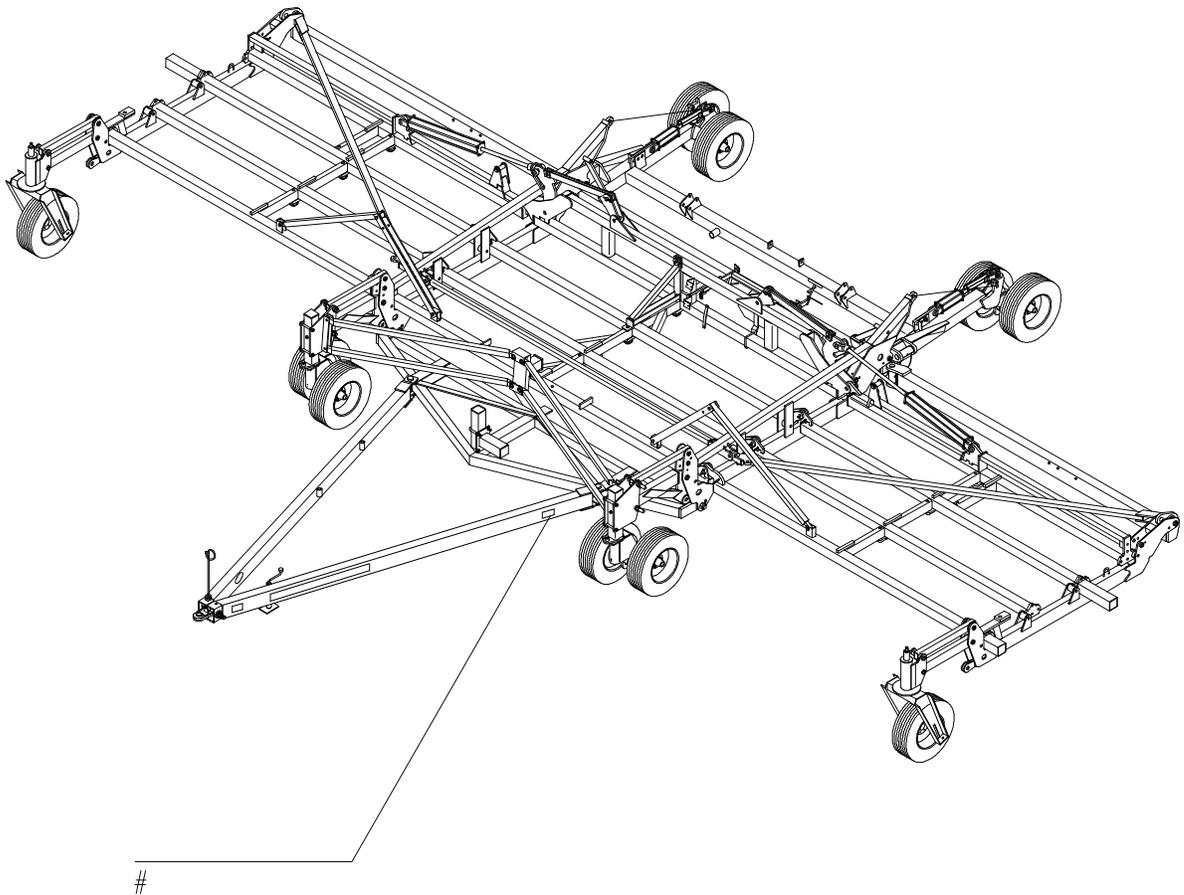
The content of this book was based on the most current information available as of the date of copyright. It is the policy of CNH Canada, Ltd., to improve and develop our products continuously. We reserve the right to make changes or add improvements, at any time, without incurring any obligation to make such changes on machines previously sold.

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REPAIR PARTS IDENTIFICATION

This Drill has a Serial Number plate attached to identify the components installed on this machine. The plate looks like the sample with a number stamped on.

For easy reference, locate the plate at the location shown on the figure. Record the number on this sheet. When requiring repair parts, take this number into your dealer. This Serial Plate was used on machines manufactured to June 2004.

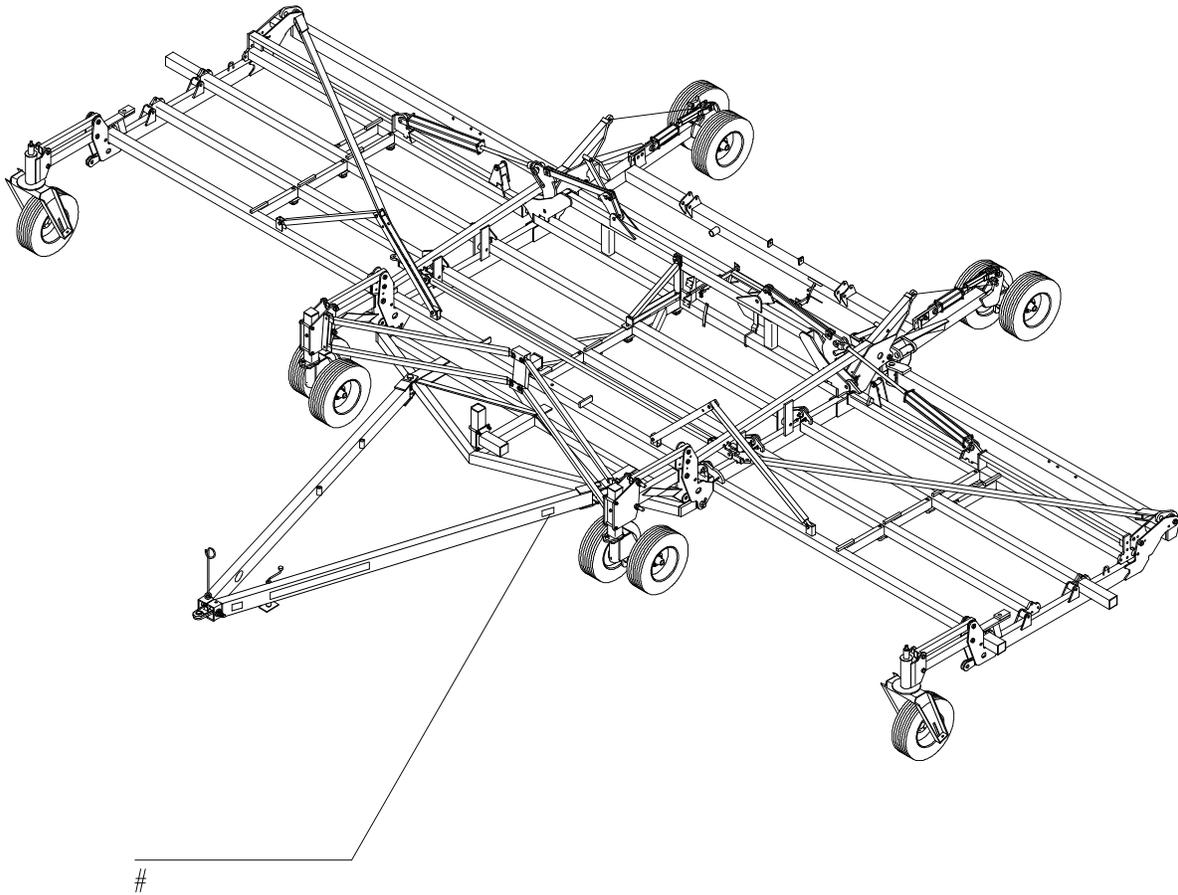


REPAIR PARTS

This implement has a Product Identification Number (PIN) plate. The plate looks like the sample at right. For easy reference, locate the PIN plate at the location shown on the figure below. Record the number on this sheet. When requiring repair parts, take this number into your dealer.

NOTE: This PIN plate replaces the Serial Number plate found on machines manufactured prior to June 2004.

CNH Canada, Ltd. Toronto, ON M5X 1B8 Canada	
flexicoil	
Made In Canada	
<input type="text" value="Model Number"/>	
<input type="text" value="Product Identification Number"/>	



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SECTION 1 - GENERAL INFORMATION

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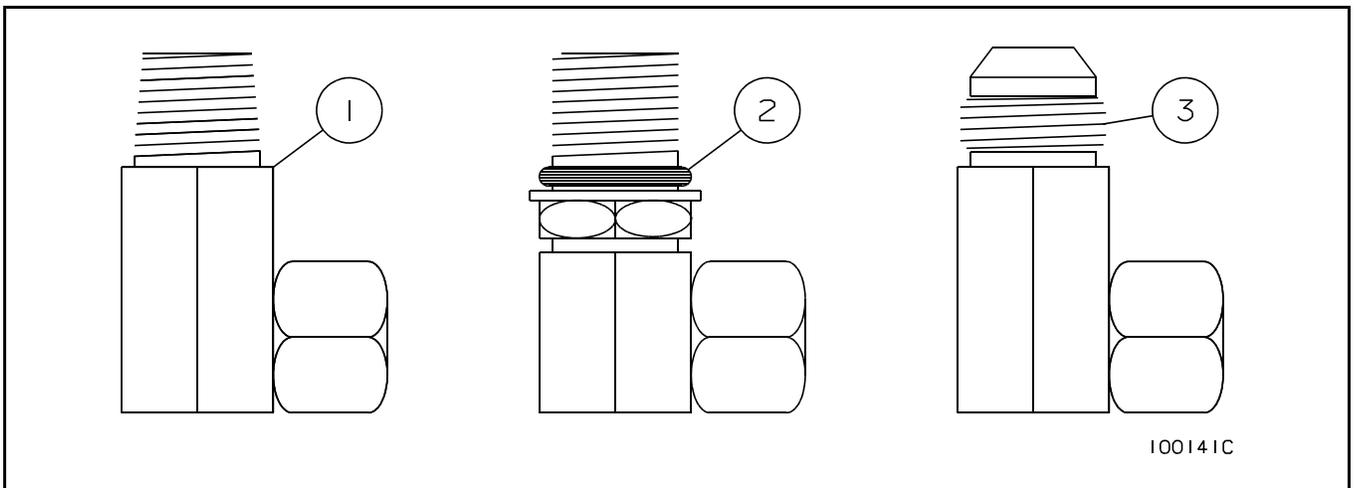
GENERAL SERVICE INFORMATION

NOTE: Read instructions carefully before you begin.

1. Be sure to read and follow all instructions to ensure proper assembly, operation, and service of the implement.
2. Service may require the use of a forklift or other suitable lifting device.
3. Implement must be serviced on a flat surface.
4. Left and right directions are determined from the rear of the implement facing the forward direction of travel.
5. Use a suitable sealant on hydraulic connections; sealant paste is recommended. Be careful to prevent sealant from entering the hydraulic system.
6. Apply a thread sealant to all female-to-male pipe thread connections.
7. Do not allow tape to enter the hydraulic system.
8. Do not use a thread sealant on ORB or swivel fitting connections.

NOTE: If you are assembling or servicing the implement inside of a building, ensure the door opening is large enough to allow the implement to be removed after assembly. Check the Specifications Tables in this section for the overall height and width in transport position.

NOTE: Additional bolt torque information can be found later in this section.



Hydraulic Fitting Identification

NOTE: Pipe thread fittings (1), O-ring boss fittings (2) and JIC fittings (3) may be the types of hydraulic fittings used.

SECTION 1 - GENERAL INFORMATION

IMPORTANT INFORMATION

All repair and maintenance work listed in this manual must be carried out only by qualified dealership personnel. Strictly comply with all instructions given. Use only the specialized tools required.

Anyone who carries out the above operations without complying with the procedures shall be responsible for the 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 due to the anomalous behavior of parts and/or components not approved by the manufacturer itself. This includes those parts and/or components 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 due to an anomalous behavior of parts and/or components not approved by the manufacturer.

The information in this manual is up to date at the date of the publication. It is the policy of the manufacturer to aim for continuous improvement. Some information could not be updated due to modifications of a technical or commercial type, as well as to suit the laws and regulations of different countries.

In case of disagreement, refer to your Sales and Service Networks.

SERVICE TOOLS

There are several service tools/update kits available through the parts department, for ease of servicing the air drill.

DR-900K	PIN GUIDES - (2) GUIDES FOR INSTALLING 1" AND 1.25" PINS.
DS-200K	KIT, PRESS WHEEL PULLER - PULLING TOOL.
DR-112K	KIT, TRANSPORT LOCK, 5000 SINGLE CASTER.
DR-114K	KIT, TRANSPORT LOCK, 5000 DUAL CASTER.

SAFETY

SAFETY - ALERT SYMBOL



This symbol is used to denote possible danger and care should be taken to prevent bodily injury. This symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**

THIS SYMBOL APPEARS WITH TEXT READING “DANGER!”, “CAUTION!”, OR “WARNING!” THESE WORDS INDICATE THREE LEVELS OF POSSIBLE HAZARDS; THEY ARE DESCRIBED BELOW.

DANGER!



Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. The color associated with Danger is RED.

WARNING!



Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. The color associated with Warning is ORANGE.

CAUTION!



Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. The color associated with Caution is YELLOW.

SECTION 1 - GENERAL INFORMATION

GENERAL SAFETY PRACTICES

REVIEW this manual and operator's manual before servicing equipment.

NEVER allow anyone unfamiliar, untrained, or complacent to operate the air drill.

ALWAYS USE the jack supplied when unhooking the air drill.

ALWAYS ensure weight of towing vehicle is heavier than implement.

NEVER transport the air drill at speeds higher than 30 km/hr (18 mph).

NEVER transport Drill/cart combination with product in tank.

MAINTAIN YOUR AIR DRILL in proper working condition. Unauthorized modifications to the machine may impair function and/or safety and affect machine life.

BE SURE the air drill is securely fastened to a large farm tractor or an air cart that is attached to a large farm tractor before operating hydraulics.

USE EXTREME CARE when making adjustments.

KEEP CHILDREN AWAY from all farm equipment.

SERVICING SAFETY PRECAUTIONS

BLOCK the wheels to prevent movement when servicing.

BE SURE the press wheels are blocked and wing lock pins are in place before servicing or adjusting opener assemblies or working on the air drill.

CAUTION!



The tractor engine should be stopped and the wheels blocked to prevent any movement during servicing.

Always be sure that the depth control safety lock is in place when servicing the air drill.

Always be sure the wings are in field position before servicing the air drill.

Escaping hydraulic fluid is a serious hazard. Escaping hydraulic fluid that is under pressure can penetrate the skin, causing serious injury. Relieve pressure before disconnecting the hydraulic lines.

Check/tighten all connections before applying pressure.

Never use your hand to search for leaks. Use a piece of cardboard or paper. If any fluid is injected into the skin, seek immediate medical attention. Gangrene may result if the wound is not treated within a few hours. Check your hydraulic fluid containers for warnings concerning the hydraulic fluids you use.

DO NOT walk within the radius of raised air drill wings.

SECTION 1 - GENERAL INFORMATION

SAFETY DURING OPERATION

DO NOT ALLOW ANYONE ON THE AIR DRILL while operating the air drill hydraulics.

NEVER disconnect the tractor from the air drill while the air drill wings are raised.

KEEP CHILDREN AWAY from the air drill during operation.

NEVER STAND within the radius of the raised wings. Hydraulic or mechanical failure may result in rapid or uncontrolled falling of the wings.

RAISE AND LOWER the wings only on level ground with the depth control fully raised.

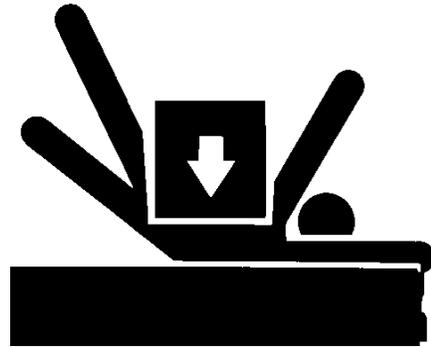


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PARK ON LEVEL GROUND and block adequately before servicing.

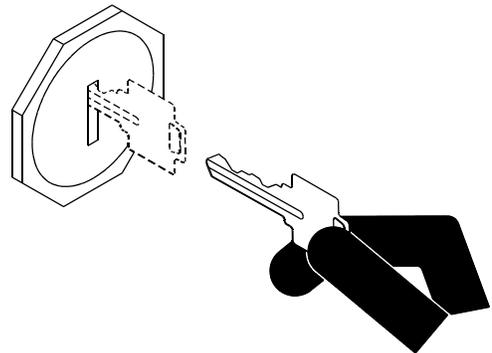
AVOID moving machines.

DO NOT sit or ride on moving implements. Death or injury may result.



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DISENGAGE POWER AND SHUT DOWN the tractor engine (remove the key from the tractor ignition), be certain that all moving parts have stopped, and all pressure in the system is relieved BEFORE cleaning, adjusting or lubricating the air drill.



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SECTION 1 - GENERAL INFORMATION

READ the operator's manual thoroughly.

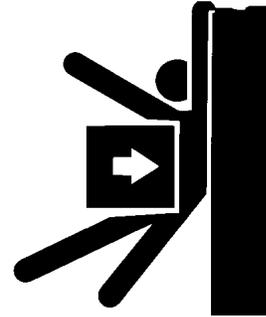
KEEP service area clean to prevent injury to service technicians and others.



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DO NOT enter tight areas. Be aware of pinch zones prior to commencing work.

BE CERTAIN machine is tagged 'out of order' or work area is supervised.



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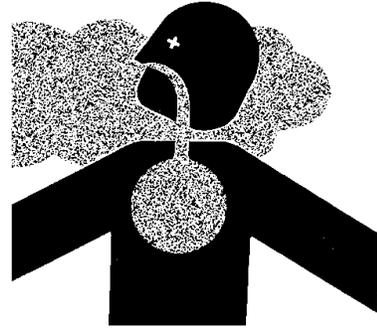
BE CERTAIN all moving parts have stopped before servicing.



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SECTION 1 - GENERAL INFORMATION

AVOID toxic vapors. Breathe clean air.



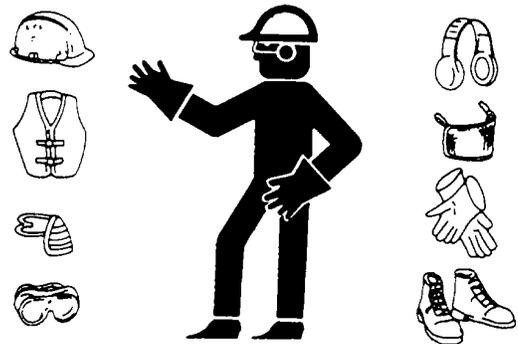
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DO NOT permit smoking.



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WEAR protective clothing.



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SECTION 1 - GENERAL INFORMATION

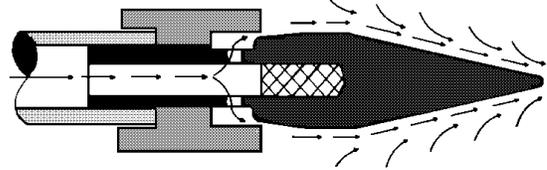
AIR AND AIR HOSES

COMPRESSOR HOSES may move unexpectedly when suddenly disconnected.



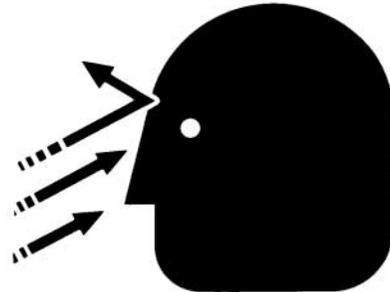
098005M1

USE PROPER air nozzles. Do not use compressed air to clean clothes or direct it toward any part of yourself.



098006M1

AVOID getting chemicals into eyes. Use eye protection.



098007M1

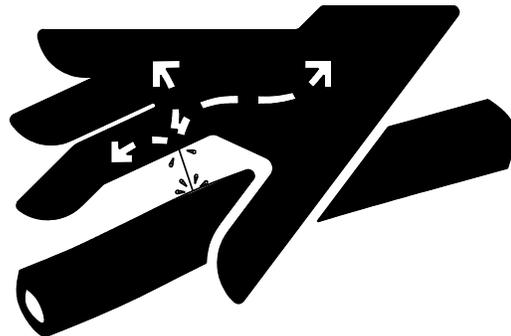
HYDRAULICS AND HYDRAULIC LEAKS

AVOID high-pressure fluids.

ESCAPING HYDRAULIC FLUID IS A SERIOUS HAZARD. Escaping hydraulic fluid under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting the hydraulic lines. Check/tighten all connections **BEFORE** applying pressure.

BEWARE excessive hydraulic pressure. Explosive structural failure can result.

BEWARE air locks in cylinders. Large cylinder displacements can occur without hydraulic oil flow.



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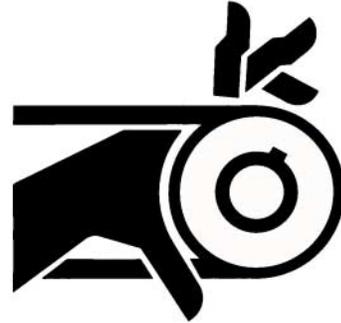
SECTION 1 - GENERAL INFORMATION

SHIELDS

REPAIR damaged shields.

KEEP all shields in place.

BE EXTRA CAUTIOUS when repairing or servicing without protective shields.



098008M1

ELECTRICAL

REMOVE the ground wire to avoid arcing contacts.

REMOVE GROUND WIRE when welding.



098009M1

TIRES

USE A CAGE IF POSSIBLE when setting tires on rims.

AVOID excessive air pressure.

DO NOT OVER-INFLATE TIRES. NEVER lean over a tire while inflating it.



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SECTION 1 - GENERAL INFORMATION

SAFETY DURING TRANSPORT

CHECK with local authorities regarding transport on public roads. Obey all applicable laws and regulations.

ONLY TOW at a safe speed (30 km/hr/18 mph). Use caution when turning corners or meeting traffic.

BE SURE transport lighting is plugged in and that the red taillight(s), amber flashers, and amber signal lights are all working properly.

ALWAYS be certain that no one is behind or near the air drill before moving it.

BE SURE all safety transport locks are in place before transporting the air drill.

BE SURE the reflector decals are clearly visible from all sides of the air drill and the 'Slow Moving Vehicle' sign is at the rear of the air drill in clear view of overtaking traffic.

BE SURE the tractor weight is equal to or greater than the total weight of the air cart and air drill.

SAFETY DECALS

KEEP SAFETY DECALS CLEAN. Wipe clean when necessary.

CHECK that the safety decals are not obstructed by the openers. If the decals are covered up, replace in a location that is clear to view.

REPLACE missing or unreadable decals. New decals are available from your dealer.

BE SURE all the wheel bolts are torqued to proper specifications before transporting the air drill.

WATCH for power poles and overhead power lines.

ALWAYS lock the tractor drawbar when transporting the air drill.

ALWAYS park the air drill on level ground and block the wheels before unhooking from the towing vehicle.

NEVER subject the air drill to steep side grades while in transport position.

ALWAYS use the hitch jack supplied with the air drill when unhooking from the tractor.

NEVER brake or decelerate during cornering.

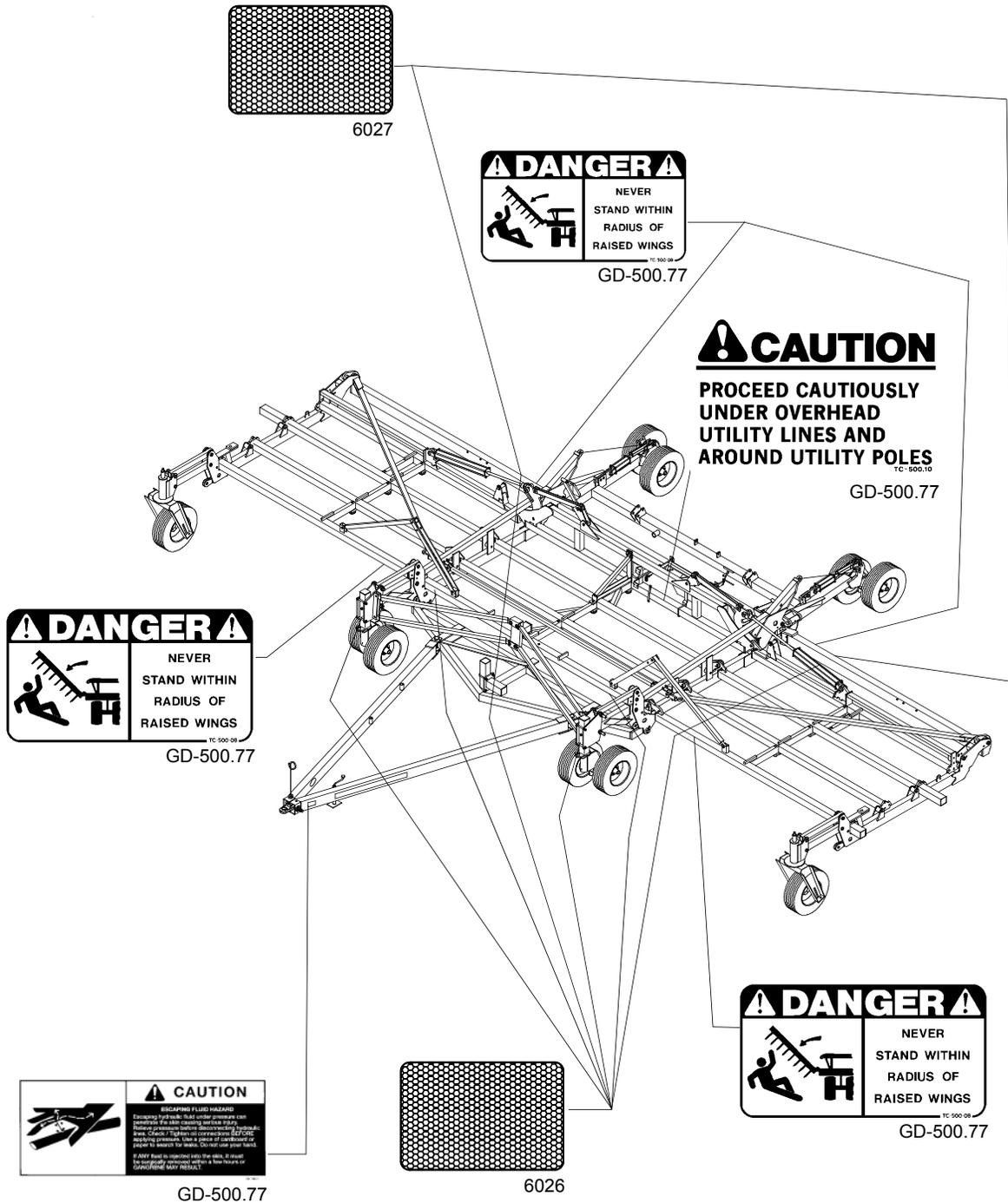
ALWAYS enter corners slowly. SLOW the machine to turning speed before entering a corner. DO NOT decelerate while executing the turn.

To replace decals:

1. Remove the old decal. Clean the area where the new decal will be affixed.
2. Remove the decal backing. Carefully affix the decal to the air drill.
3. Work the air bubbles out from under the decal. Use a clean piece of paper or the decal backing itself.

SECTION 1 - GENERAL INFORMATION

DECAL LOCATIONS



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SECTION 1 - GENERAL INFORMATION

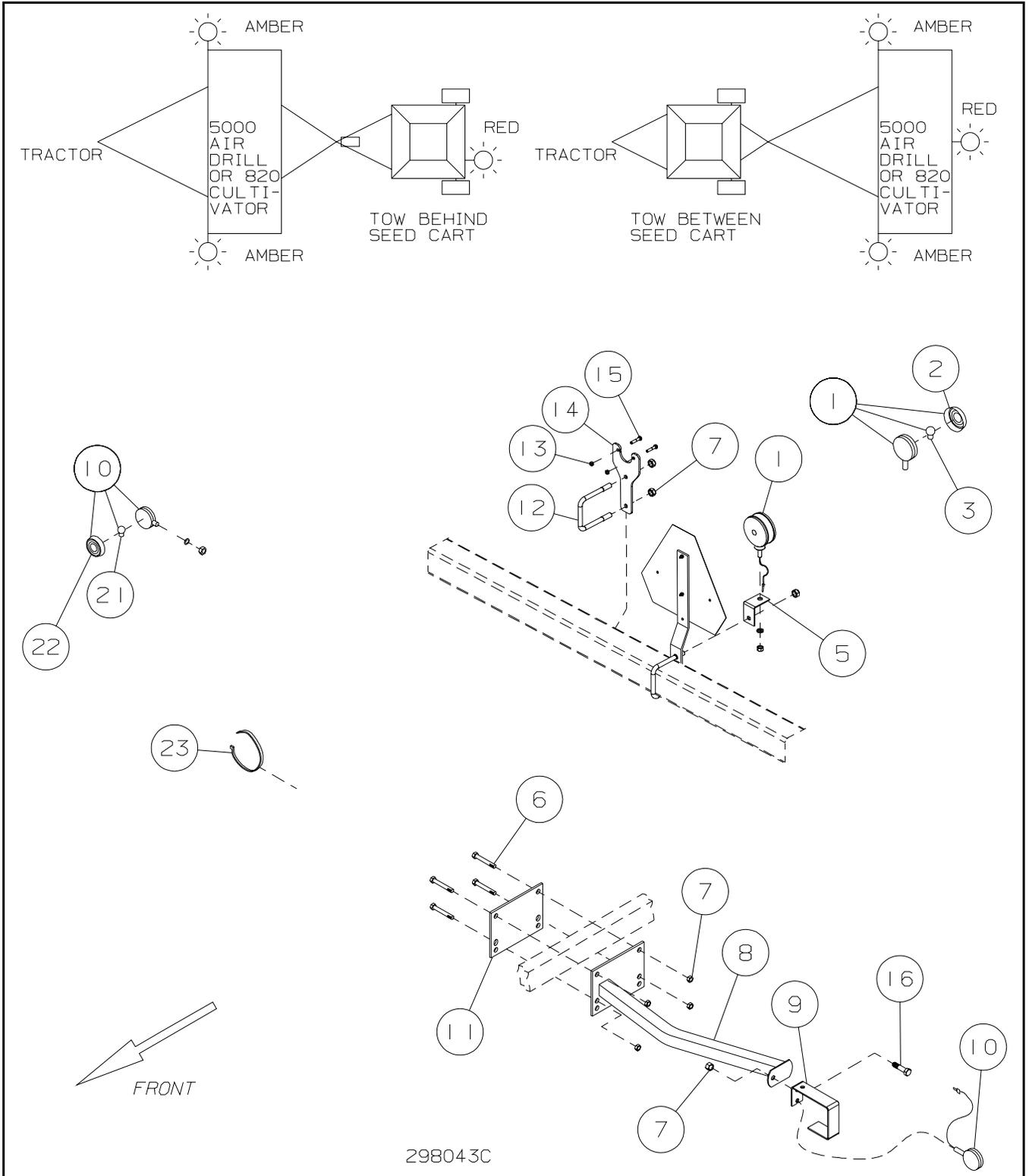
TRANSPORT LIGHTING ASSEMBLY

First Serial Range: AD.A0000-K039601 to AD.A0000-S068500

REF	DESCRIPTION	REF	DESCRIPTION
1	TAIL LIGHT ASSEMBLY, RED	11	BACKING PLATE, UNIVERSAL
2	LENS, RED	12	U-BOLT SQ .5" X 4.125" W X 5.25" D
3	BULB, DOUBLE CONTACT	13	LOCKNUT .313" UNC
5	MOUNT BRACKET, RED LIGHT	14	BRACKET, PLUG RECEPTACLE
6	BOLT .5 X 3.5 GR. 5	15	BOLT .313 X 1.5 GR. 5
6	BOLT .5 X 5.5 GR. 5	16	BOLT .5 X 1 GR.5
6	BOLT .5 X 7.5 GR. 5	21	BULB, SINGLE CONTACT
7	LOCKNUT .5" UNC	22	LENS, AMBER
8	BRACKET, AMBER LIGHT	23	CABLE TIE STRAP 21"
9	SHIELD, AMBER SAFETY LIGHT	23	CABLE TIE STRAP 14"
10	LIGHT ASSEMBLY, WARNING - AMBER		

Transport Lighting Assembly - 5000 Air Drill Parts

SECTION 1 - GENERAL INFORMATION



Transport Lighting Assembly - First Serial Range

SECTION 1 - GENERAL INFORMATION

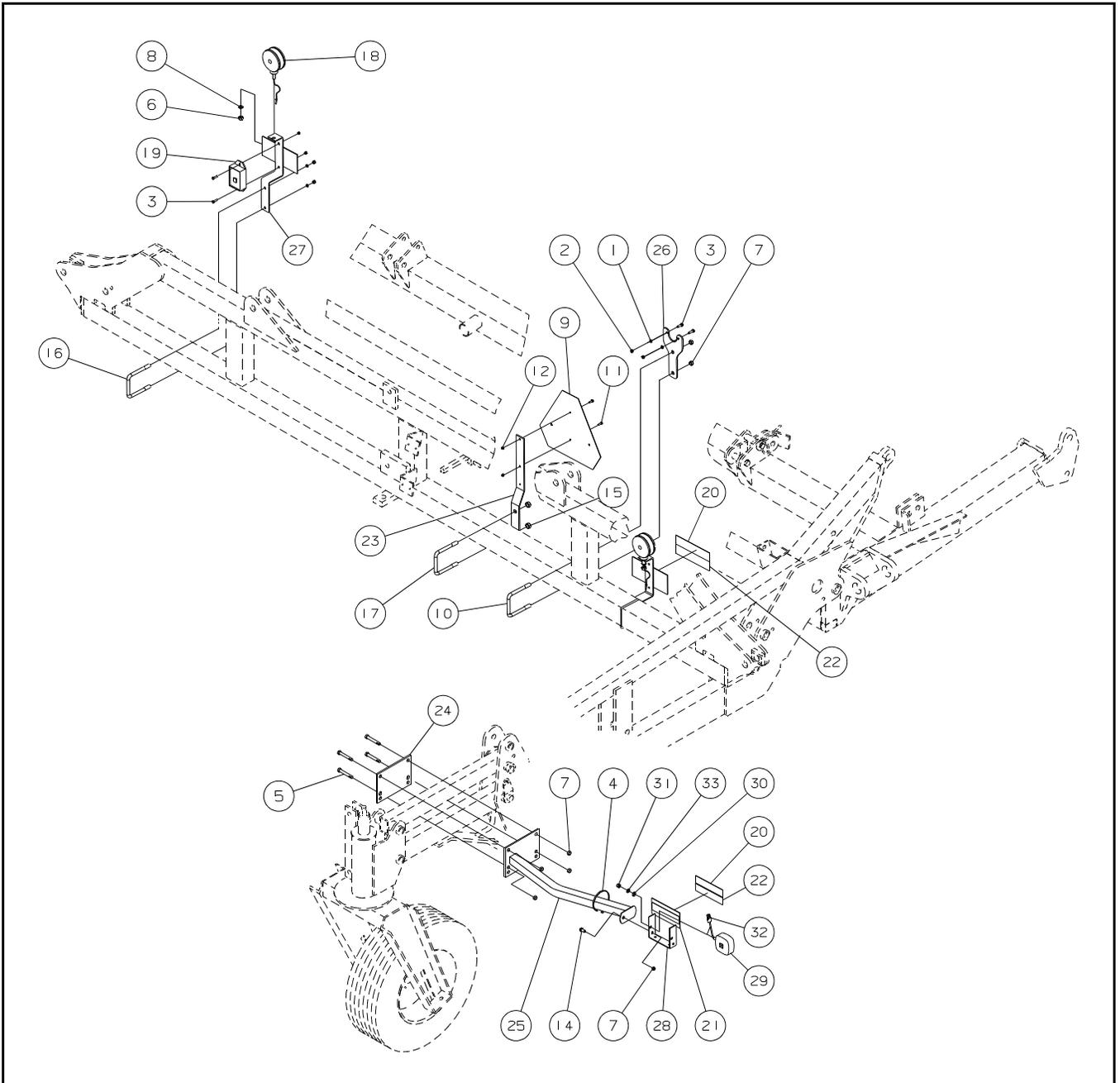
TRANSPORT LIGHTING ASSEMBLY

Second Serial Range: AD.B0000-S068601 to AD.B0000-U094935
 AD-097701 to AD-110657
 Y4S003001 to Y~

REF	DESCRIPTION	REF	DESCRIPTION
1	WASHER, LOCK .313 YZD	18	LIGHT, RED
2	NUT .313" UNC	18	BULB, DOUBLE CONTACT
3	BOLT .313 X 1.5 UNC GR5 YZD	19	MODULE, IMPLEMENT LIGHTING CONTROL
4	STRAP, CABLE 14"	20	DECAL - RETROREFLECTIVE RED 2.0 X 9.0
5	BOLT .5 X 7.5 UNC GR5 YZD	21	DECAL - RETROREFLECTIVE AMBER 2.0 X 9.0
6	NUT .5" UNC	22	DECAL - FLUORESCENT RED ORANGE
7	NUT, LOCK .5" UNC	23	BRACKET, S.M.V. SIGN
8	WASHER, LOCK .5 YZD	24	PLATE, BACKING, UNIVERSAL
9	SIGN, WARNING, S.M.V.	25	BRACKET, AMBER LIGHT
10	U-BOLT, US .5 4.125W 5.25D	26	BRACKET, PLUG RECEPTACLE
11	BOLT .25 X .75 UNC GR5 YZD	27	BRACKET, MOUNT RED LIGHT/DECAL
12	NUT, LOCK .25" UNC	28	BRACKET, AMBER LIGHT / DECAL MOUNT
13	BOLT .313 X 1 UNC GR5 YZD	29	LIGHT ASSEMBLY, WARNING - AMBER
14	BOLT .5 X 1 UNC GR5 YZD	29	LIGHT, AMBER
15	NUT, LOCK .625" UNC	29	BULB, SINGLE CONTACT
16	U-BOLT, US .313 4.125W 4.75D UNC GR2 YZD	30	WASHER .531 X 1.062 X .095
17	U-BOLT, US .625 4.063W 5.375D UNC GR5 YZD	31	NUT .5 UNF GR5 YZD
18	LIGHT, STOP, ASSEMBLY, TAIL/SIGNAL	32	CONNECTOR, ELEC, PLASTIC2C RECEPTACLE
18	LIGHT, RED	33	WASHER, LOCK .5 YZD

Transport Lighting Assembly - Second Serial Range

SECTION 1 - GENERAL INFORMATION



Transport Lighting Assembly - Second Serial Range

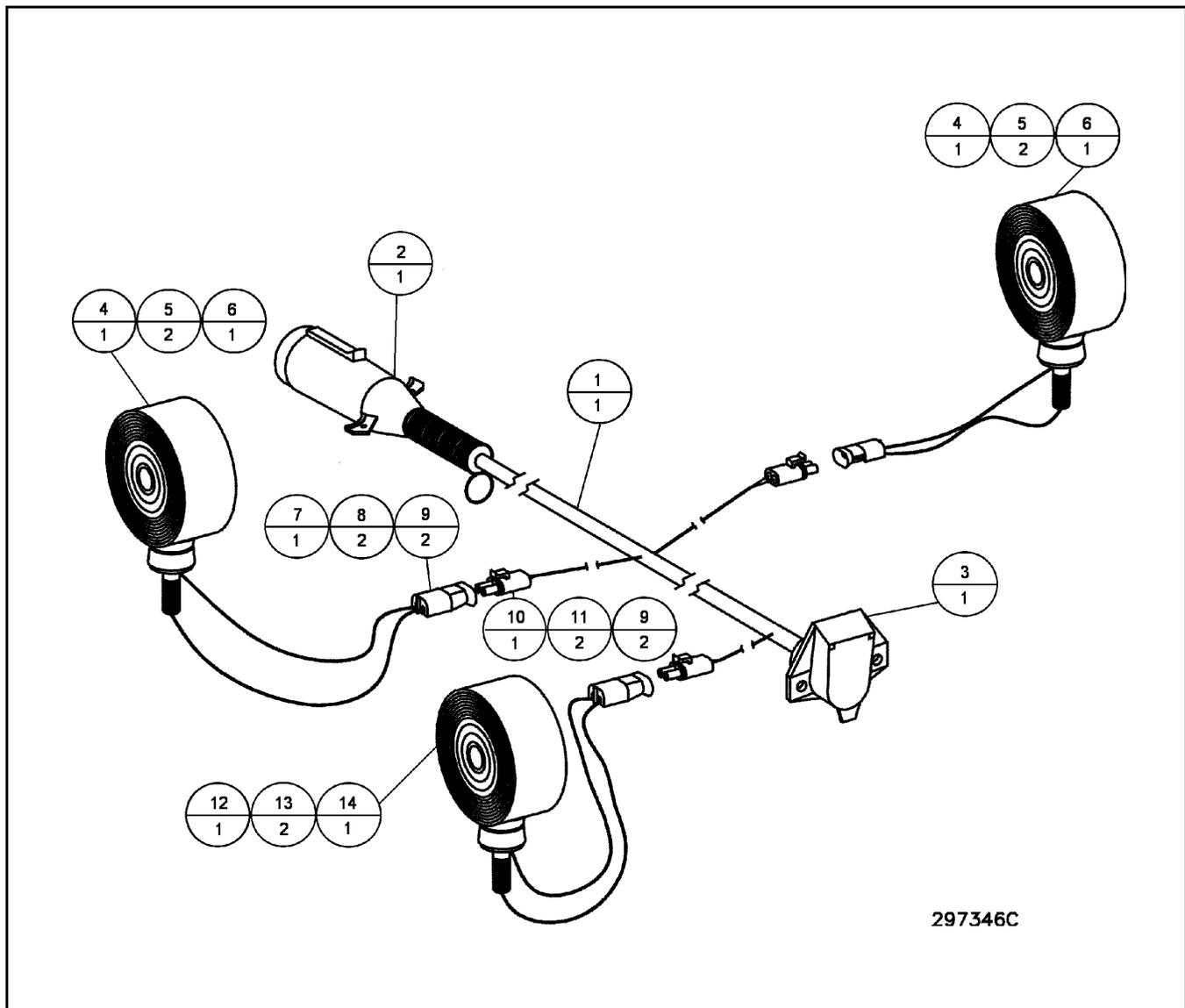
SECTION 1 - GENERAL INFORMATION

SAFETY LIGHTING ELECTRICAL ASSEMBLY

First Serial Range: AD.A0000-K039601 to AD.A0000-S068500

REF	DESCRIPTION	REF	DESCRIPTION
1	CABLE HARNESS, LIGHTING -TILLAGE	8	CONTACT PIN, ELECTRICAL CONNECTOR
2	ELECTRICAL PLUG, 7 POLE	9	SEAL, ELECTRICAL CONNECTOR
3	ELECTRICAL SOCKET, 7 POLE	10	PLUG CAB, ELECTRICAL CONNECTOR
4	LIGHT ASSEMBLY, WARNING - AMBER	11	CONTACT SOCKET, ELECTRICAL CONNECTOR
5	LENS, AMBER	12	TAIL LIGHT ASSEMBLY, RED
6	BULB, SINGLE CONTACT	13	LENS, RED
7	PLUG CAB, ELECTRICAL CONNECTOR	14	BULB, DOUBLE CONTACT

Safety Lighting Electrical Assembly - 5000 Air Drill Parts



Safety Lighting Assembly

SECTION 1 - GENERAL INFORMATION

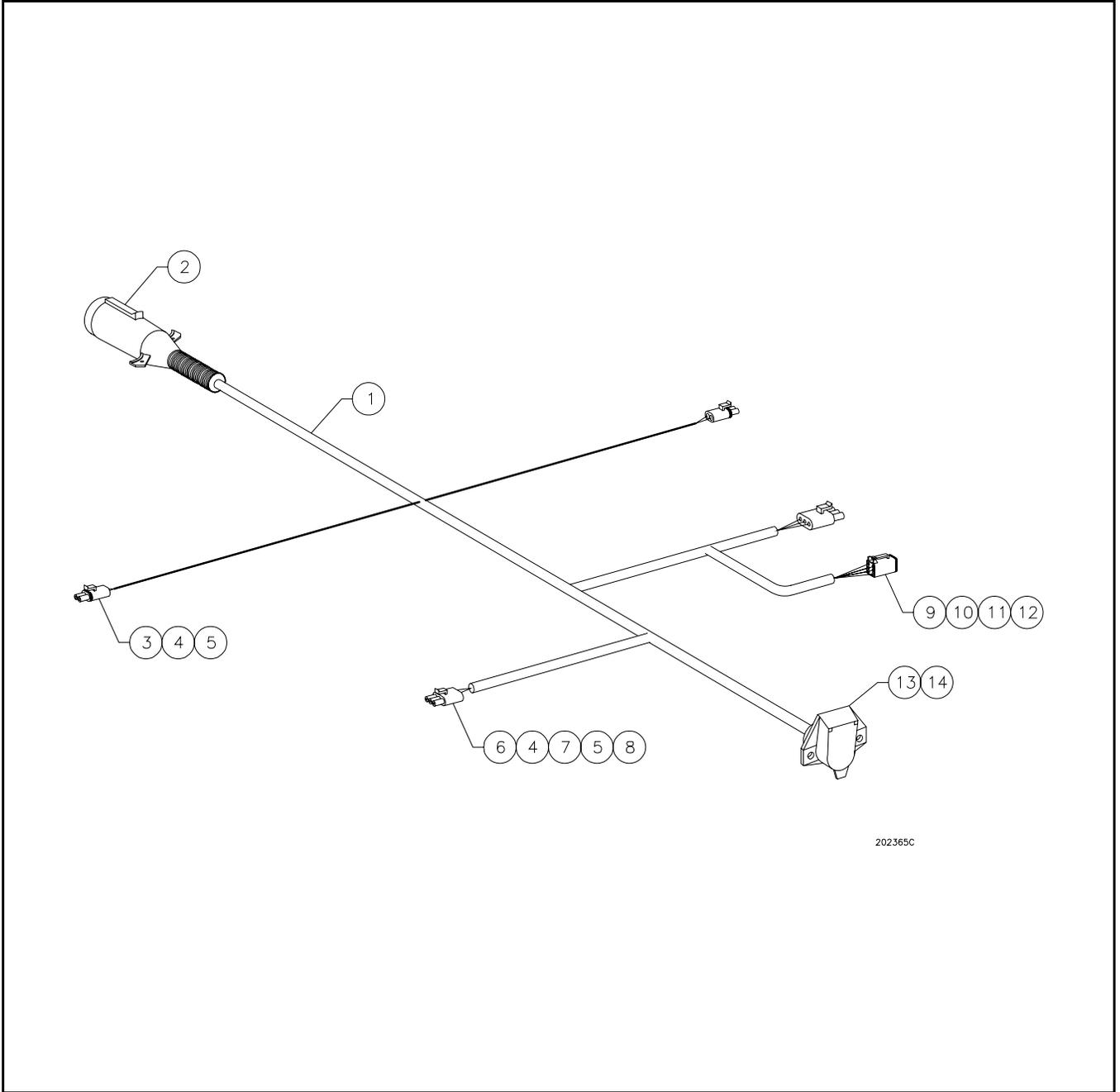
SAFETY LIGHTING ELECTRICAL ASSEMBLY

Second Serial Range: AD.B0000-S068601 to AD.B0000-U094935
 AD-097701 to AD-110657
 Y4S003001 to Y~

REF	DESCRIPTION
1	HARNESS, LIGHTING TILLAGE
2	CONNECTOR, ELEC METAL 7C PLUG C/W CABLE PROTECTOR
3	CONNECTOR, ELEC, PLASTIC 2C PLUG
4	SOCKET, CONTACT 14-16AWG BRASS TIN PLATED
5	SEAL, ELECTRICAL CONNECTOR
6	CONNECTOR, ELEC, PLASTIC 3C PLUG
7	SOCKET, CONTACT 18-20AWG BRASS TIN PLATED
8	SEAL, CONNECTOR GREEN
9	CONNECTOR, ELEC, PLASTIC 6C PLUG
10	CONNECTOR, ELEC, LOCK, 6C PLUG DT
11	SOCKET, CONTACT 16-18AWG COPPER NICKEL PLATED
12	SOCKET, CONTACT 14-16AWG COPPER NICKEL PLATED
13	CONNECTOR, ELEC METAL 7C RECEPTACLE
14	COVER, RUBBER BOOT
100	CLAMP, CABLE - .75" ID

Safety Lighting Electrical Assembly - Second Serial Range

SECTION 1 - GENERAL INFORMATION



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Safety Lighting Assembly - Second Serial Range

UNITS OF MEASURE**ABBREVIATIONS**

Acres	ac	Kilometers per hour	km/hr
Atmospheres	atm	Kilopascal	kPa
Bushel	bu	Kilowatt	kW
Centimeters	cm	Liters per hectare	L/ha
Cubic Meters	m ³	Liters per minute	L/min
Cubic Feet	ft ³	Liters	L
Degrees Fahrenheit	F°	Meters	m or M
Degrees Celsius	C°	Miles per hour	mph
Feet	ft	Milliliters	mL
Fluid ounces	oz	Millimeters	mm
Gallons per minute	gal/m	Newton Meters	N·m
Gallons per acre	gal/ac	Ounces	oz
Gallons	gal	Pound force inches	lbf·in
Hectares	ha	Pound force feet	lbf·ft
Horsepower	hp	Pounds per square inch	PSI
Inch	in	Pounds	lbs
Kilograms per hectare	kg/ha	Pounds per acre	lbs/ac
Kilograms	kg	Ton (short)	t
Kilometer	km	Tonne	t