SERVICE MANUAL

Discbine® 313
Discbine® 316
Disc Mower-Conditioner

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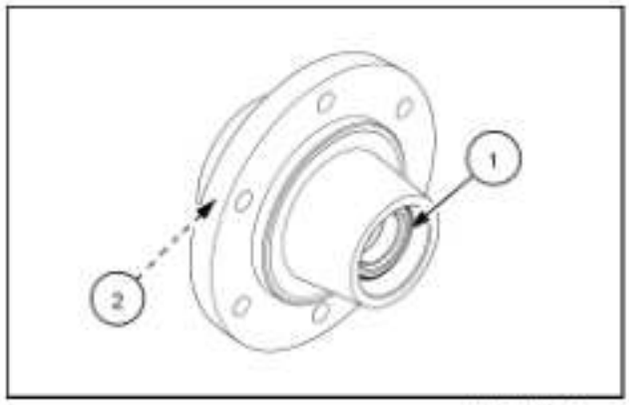
General specifications

Model	Discbine® 313	Discbine® 316
Overall Width		
Transport position	**4.04 m (13 ft 4 in)**	**5.05 m (16 ft 7 in)**
Field position – Two-point hitch	**6.5 m (21 ft 3 in)**	**7.8 m (25 ft 7 in)**
Field position – Drawbar	**6.0 m (19 ft 7 in)**	**7.3 m (23 ft 11 in)**
Overall Length		
Transport position – Two-point hitch	**8.4 m (27 ft 5 in)**	**9.7 m (32 ft 0 in)**
Transport position – Drawbar	**8.1 m (26 ft 5 in)**	**9.4 m (31 ft 0 in)**
Field position – Two-point hitch	**7.0 m (23 ft 0 in)**	**8.1 m (26 ft 7 in)**
Field position – Drawbar	**6.7 m (22 ft 0 in)**	**7.8 m (25 ft 7 in)**
Height		
Transport position	**2.26 m (7 ft 5 in)**	**2.26 m (7 ft 5 in)**
Field position	**2.01 m (6 ft 7 in)**	**2.01 m (6 ft 7 in)**
Ground clearance		
Header fully raised	**411 mm (16.2 in)**	
Weight		
Shipping – Without hitch	**2912 kg (6420 lb)**	**3104 kg (6843 lb)**
Shipping – Two-point hitch and drawbar	**2991 kg (6594 lb)**	**3184 kg (7020 lb)**
Operating	**2846 kg (6274 lb)**	**3039 kg (6700 lb)**
Tractor requirements		
Power	**67 kW (90 Hp)** or greater with standard Category 2 or Category 3 **ASAE/ASABE** hitch and PTO locations.	**75 kW (100 Hp)** or greater with standard Category 2 or Category 3 **ASAE/ASABE** hitch and PTO locations.
Hydraulic circuits required	Two remote hydraulic circuits capable of **104 bar (1500 psi)**	
Electrical	7-pin electrical connector for trailing and road transport lights	
Power Take-Off (PTO) shaft spline and size requirements	21-spline **1-3/8 in**	
Input speed	**1000 RPM** only	
Drive line protection	Overrunning and friction slip clutch assembly at the front of the secondary PTO shaft	
Header		
Flotation	Vertical and radial, adjustable springs	
Windrow width	**0.9 - 2.4 m (3.0 - 8.0 ft)**	
Swath width – Roll conditioner units	**3 m (10 ft)**	**3.7 m (12.0 ft)**
Swath width – Flail conditioner units	**3.4 m (11.0 ft)**	**4.0 m (13.0 ft)**
Header lift	Hydraulic (master-slave system)	
Cutterbar		
Type	Modular	
Number of discs	8 counter-rotating	8 counter rotating, 2 co-rotating
Knives per disc	2	
Disc cutting diameter	**618 mm (24.3 in)**	
Disc drive method	PTO drive with a friction slip clutch to a bevel gearbox at the left-hand end of header, then to a vertical PTO shaft to the cutterbar	
Cutterbar shear protection	Frangible splines in disc drive hub	
Disc speed at **1000 RPM** PTO speed	**2250 RPM**	
Knife tip speed at **1000 RPM** PTO speed	**261 km/h (162 mph)**	
Cutting width	**4.0 m (13 ft- 0 in)**	**4.95 m (16ft-3 in)**

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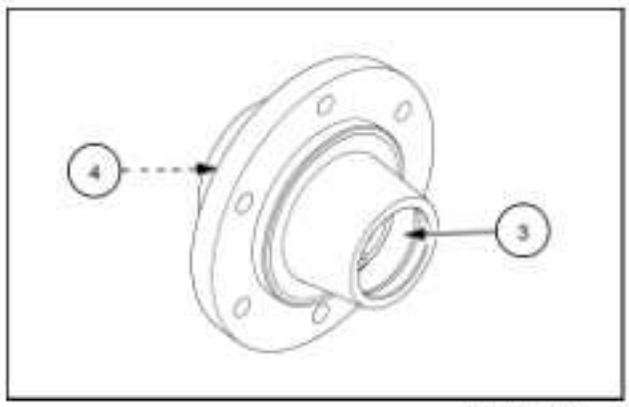
Transport wheel - Disassemble - Wheel hub assembly

1. Remove the bearing cones **(1)** and **(2)** from the wheel hub assembly.



1

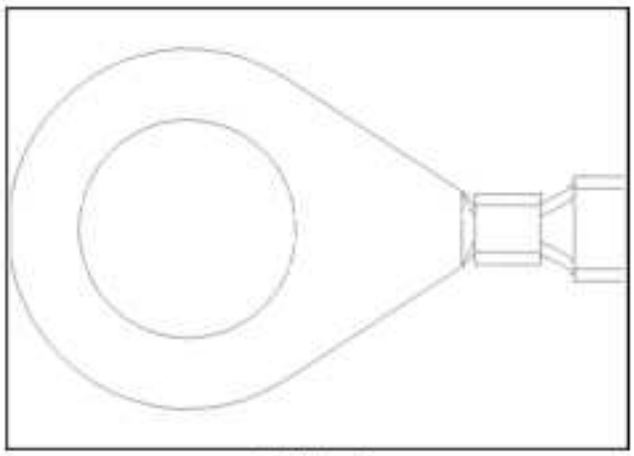
2. Remove the bearing cups **(3)** and **(4)** from the wheel hub assembly.
3. Wipe away any excess grease and thoroughly clean the wheel hub with **LOCTITE® ODC-FREE CLEANER AND DEGREASER** or a suitable solvent.
4. Inspect the inner bore of the wheel hub for damage and replace if necessary.



2

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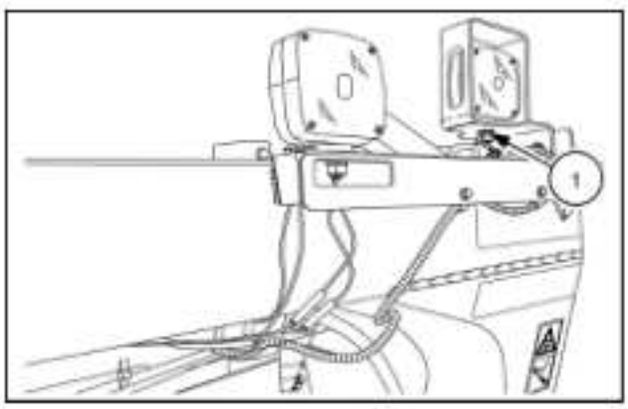
X-026 - Right-hand flashing light ground terminal (84301910) (Female)



84301910 11

84301910

Pin	From	Wire	Description	Color-Size	Frame
1	SP-AA	LT-017A	Right-hand flashing light ground	WH - 2.0	**SHEET 01**



NHEL16H700406AA 12

Connector X-026 **(1)** terminates at the right-hand flashing light threaded lamp mounting base.

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Disc cutterbar - Component identification - Cutterbar modules

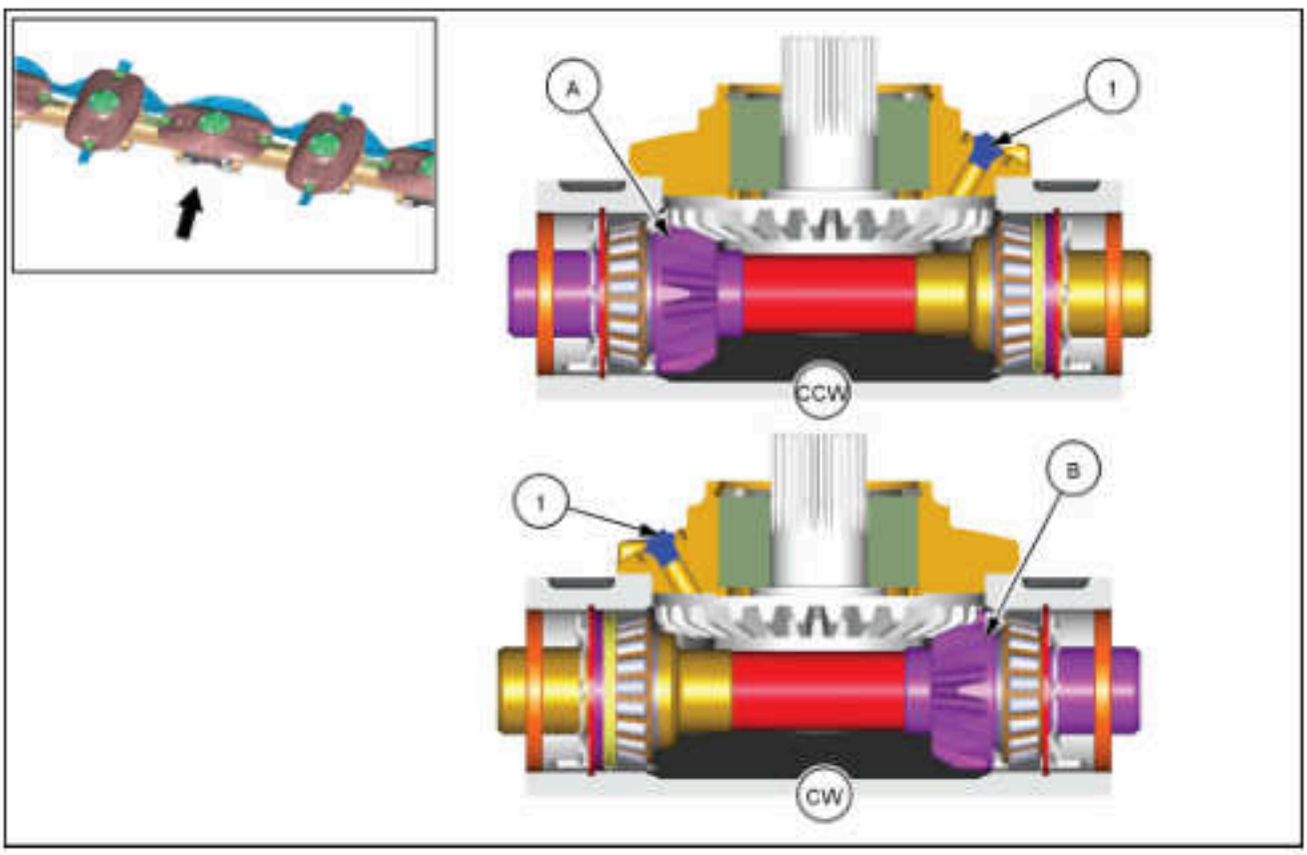
NOTE: *Component orientation, the left-hand side and right-hand sides are referenced from, and described from, the normal working operation direction of travel of the machine.*

Before you assemble a cutterbar module, you must know how to identify the type of cutterbar module (driven or non-driven) and directional rotation in relation to the mounting position of the cutterbar module onto the cutterbar. Each cutterbar module housing is factory-engraved on the front underside of the module with either CCW for counterclockwise rotation or CW for clockwise rotation.

NOTE: *Assembly of the module should be with regard to the engraved directional marking, though all of the non-driven cutterbar modules can be assembled as either CCW or CW if necessity requires a replacement module housing.*

With reference to Figure **1**, the illustration shows the assembly of a CCW cutterbar module with the pinion gear **(A)** on the left-hand side that produces counterclockwise rotation, and a CW cutterbar module with the pinion gear **(B)** on the right-hand side that produces clockwise rotation.

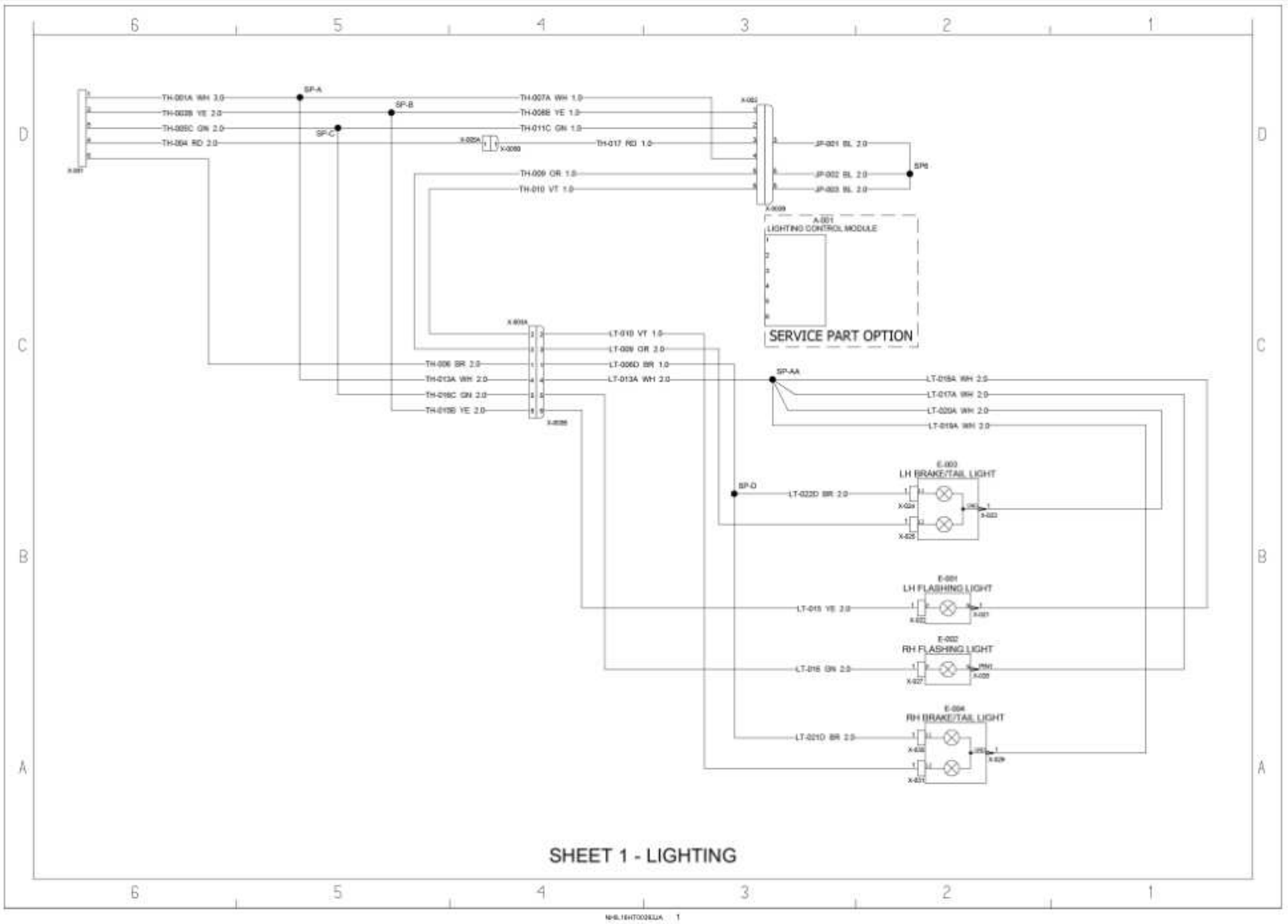
NOTICE: *Make sure that you orient the breather valve **(1)** on the top cap to the opposite side of the pinion gear during assembly.*



NHL16H13084PA 1

Cutterbar module – Sectional view (rear of module facing forward, the normal direction of travel and operation)

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