ORIGINAL INSTRUCTIONS

OPERATOR'S MANUAL

Discbine® 310
Discbine® 312
Disc Mower-Conditioner

Part number 48145413
1st edition English
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MidWestTech | New Holland Discbine 310, 312 Disc Mower Conditioner Operator's Manual | Publication 48145413

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Before operating check

Before you operate the disc mower-conditioner for the first time, perform the following items:

1. Read the operator's manual completely and carefully.
2. Check that the machine is assembled correctly and is undamaged. Make sure that no parts are tied up in the shipping position on the inside of the machine.
3. Make sure that the Power Take-Off (PTO) on the tractor is the correct size and speed specification, and that the tractor is capable of maintaining the specified **1000 RPM** with no load on the machine. Too high of a PTO speed can be dangerous; too low of a PTO speed will cause a reduction in cutting capacity and crop flow as well as an increase in load on the power-transferring elements.
4. Check the length of the primary PTO shaft. PTO shafts that are too short or too long can cause considerable damage to the tractor and the disc mower-conditioner. Make sure that the safety shields do not get jammed or damaged in any operating position. Make sure that the safety chains are securely attached and do not get tight or damaged in any position.
5. Make sure that the hydraulic hoses are connected to the tractor with sufficient slack to account for a raised or lowered header and sharp turns.
6. Check the torque on the wheel hardware; **270 N·m** (**199 lb ft**)
7. Check the tire pressure; minimum **1.5 bar** (**22 psi**), recommended **2.5 bar** (**36 psi**).
8. Lubricate the machine as described in the "Maintenance chart" (**6-7**).
9. Burnish the slip clutch.

This machine was tested at the factory to ensure proper operation. However, perform the following actions with the rear tractor window open and without hearing protection to check the operation of the machine.

1. Start the tractor and engage the PTO at a low speed.
2. If there are no unusual scratching or knocking sounds, increase the PTO speed slowly, up to the rated speed of **1000 RPM**.

   NOTE: *Because of the small centrifugal force at a low speed, the cutting blades can touch the upper edge of the cutterbar suspension, which can be heard by a "ticking" sound. This sound must disappear at the rated PTO speed during normal machine operation.*
3. At the rated speed, check for any unusual or noticeable vibrations.

   NOTICE: *If you are in doubt whether the machine is operating correctly, disengage the PTO and stop the tractor immediately.*
4. Disengage the PTO and turn off the tractor.
5. Turn the rotating parts on the machine manually to make sure that all parts can turn freely.
6. Visually check the machine for any problems. Check for scratched off or burnt paint.

   NOTE: *The cutterbar under the discs can become very warm. The color of the cutterbar will get darker after several hours of operation.*

If you wish to test the machine for an extended period of time, close the rear window or use hearing protection.

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Every 50 hours

Grease points

See "Grease fittings and intervals" (**6-4**) to identify the grease fittings that require lubrication at this interval.

Every 250 hours

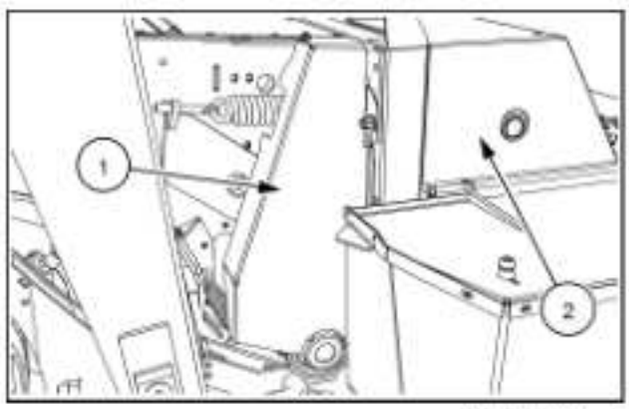
Grease points

See "Grease fittings and intervals" (**6-4**) to identify the grease fittings that require lubrication at this interval.

As required

Conditioner drive belt – Replace

1. Remove the right-hand header shield **(1)** on the right-hand side of the machine.
2. Remove the conditioner drive shield **(2)** from the top of the header.

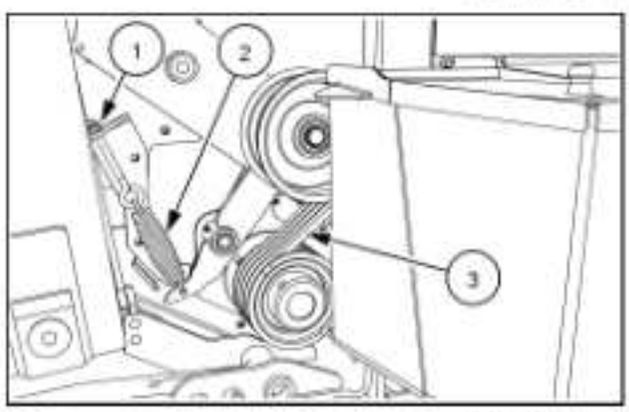


1

3. Loosen the tensioner locknut **(1)** until all tension is relieved from the drive belt idler spring **(2)**.

NOTE: *Figure* ***2*** *shows the tensioner for a roll conditioner machine. The location, function, and tension specification of the conditioner drive is the same for a flail conditioner, however, the orientation of the tension spring is different.*

4. Remove the four drive belts **(3)** from the upper and lower conditioner drive sheaves.
5. Install new drive belts onto the sheaves.
6. Tighten the tensioner locknut to achieve a **1 – 2 mm** (**0.04 – 0.08 in**) gap between the spring coils.
7. Install the removed shields when the procedure is complete.



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8 - SPECIFICATIONS

Machine specifications and dimensions

Width, length, and height specifications

Model	Discbine® 310	Discbine® 312
Overall width		
Transport position	**3000 mm (118 in)**	**3410 mm (134 in)**
Field position	**3814 mm (150 in)**	**4224 mm (166 in)**
Overall length		
Transport position	**6938 mm (273 in)**	**7513 mm (296 in)**
Field position	**5965 mm (235 in)**	**6413 mm (253 in)**
Height – Overall, with Slow-Moving Vehicle (SMV) emblem		
Transport position	**2336 mm (92 in)**	**2336 mm (92 in)**
Field position	**1941 mm (76 in)**	**1941 mm (76 in)**
Height – Trail frame		
Transport position	**1921 mm (76 in)**	**1927 mm (76 in)**
Field position	**1557 mm (61 in)**	**1557 mm (61 in)**
Ground clearance		
Header fully raised	**481 mm (19 in)**	**481 mm (19 in)**

General machine specifications

Model	Discbine® 310	Discbine® 312
Working width	**3.15 m (10.3 ft)**	**3.51 m (11.5 ft)**
Capacity at **10 km/h (6.2 mph)**, effective	**3.1 Ha/hr (7.7 Ac/hr)**	**3.5 Ha/hr (8.6 Ac/hr)**
Power Take-Off (PTO) speed	**1000 RPM**	
Power requirement, minimum PTO	**60 kW (82 Hp)**	**64 kW (87 Hp)**
Hydraulic remote outlets	one double-acting (tongue swing) one single-acting (header lift)	
Tongue	Heavy duty center-pivoting, with swivel gearbox	
Number of discs	8	9
Number of knife blades	16	18
Stubble height adjustment	Standard	
Flotation system	Extension spring with Top Safe system (standard)	
Swath width, single swath	**1.2 – 2.0 m (3.9 – 6.6 ft)**	
Swath width, Top Dry*	**2.5 m (8.2 ft)**	**2.8 m (9.2 ft)**
Transport width	**3 m (9.8 ft)**	**3.46 m (11.4 ft)**
Tires	380/55–17	
Standard weight	approximately **2400 kg (5291 lb)**	approximately **2620 kg (5776 lb)**
Standard tongue weight	approximately **550 kg (1213 lb)**	approximately **550 kg (1213 lb)**

* The Top Dry system is only available for flail conditioner machines.

Conditioning system specifications

Model	Discbine® 310		Discbine® 312	
Conditioner	Steel flail	Rubber roll	Steel flail	Rubber roll
Tines	70	N/A	86	N/A
Width	**2.51 m (8.2 ft)**		**2.92 m (9.6 ft)**	
Central adjustment	Standard			
Standard speed	**1000 RPM**	**970 RPM**	**1000 RPM**	**970 RPM**
Top Dry system	Standard	N/A	Standard	N/A

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Description:

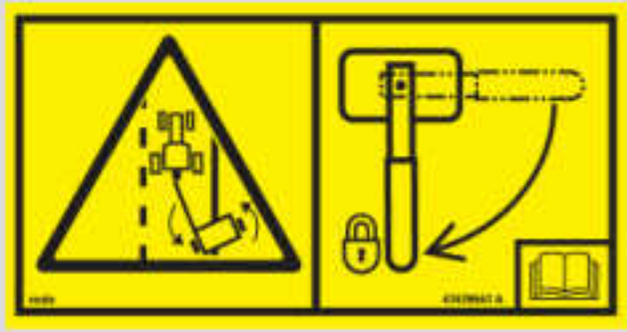
⚠ WARNING ⚠

LOSS OF CONTROL HAZARD!

ENGAGE TRANSPORT LOCK
Engage the lock when transporting to prevent accidental movement of the header.
Failure to comply could result in death or serious injury.

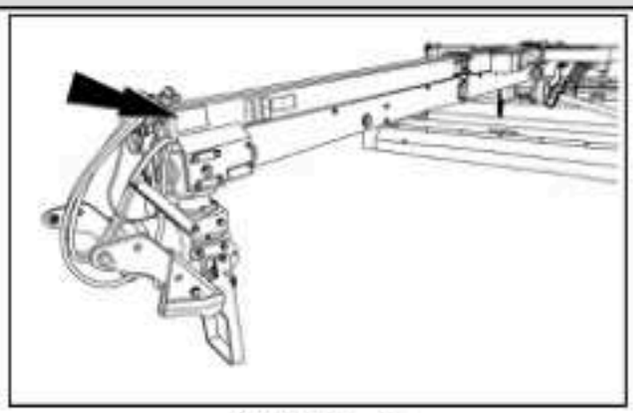
Quantity: 1

Part number:
English 47476547



47476547 11

Location:
Located on the left-hand side of the tongue, near the hitch. This safety sign is associated with the tongue swing cylinder lock that is directly behind the quick coupler.



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Description:

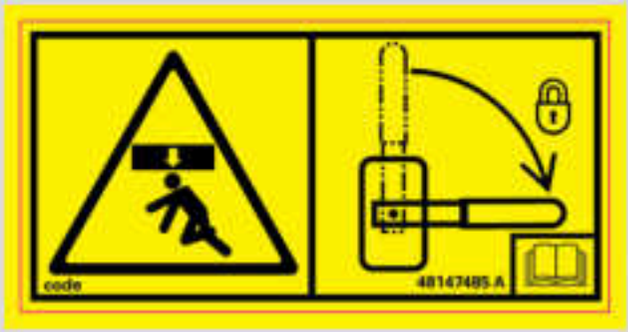
⚠ DANGER ⚠

CRUSHING HAZARD!

Make sure that you engage the header lift lock valve whenever the header is raised for maintenance or road transport.
Failure to comply will result in death or serious injury.

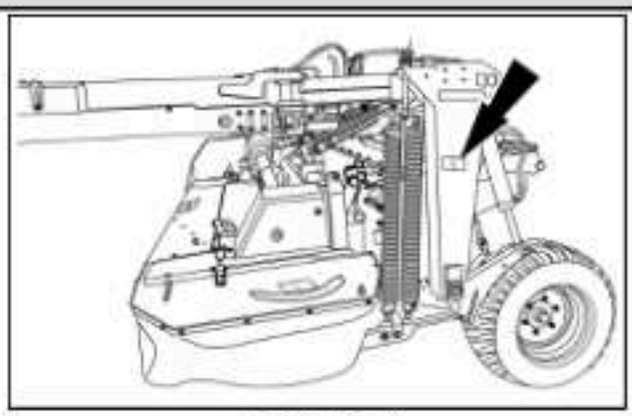
Quantity: 2

Part number:
48147485



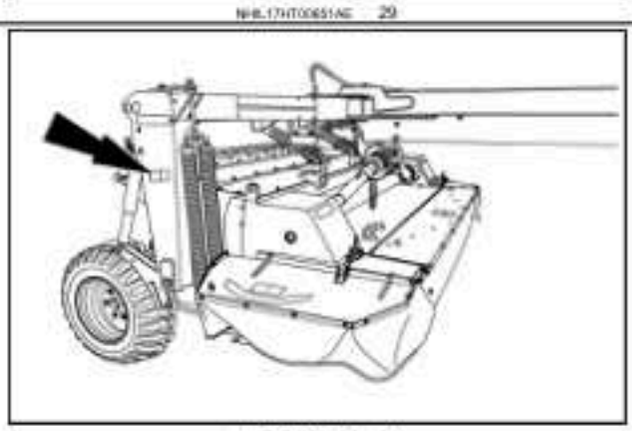
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Location 1:
Located on left-hand side of the trail frame, rearward of the flotation springs.



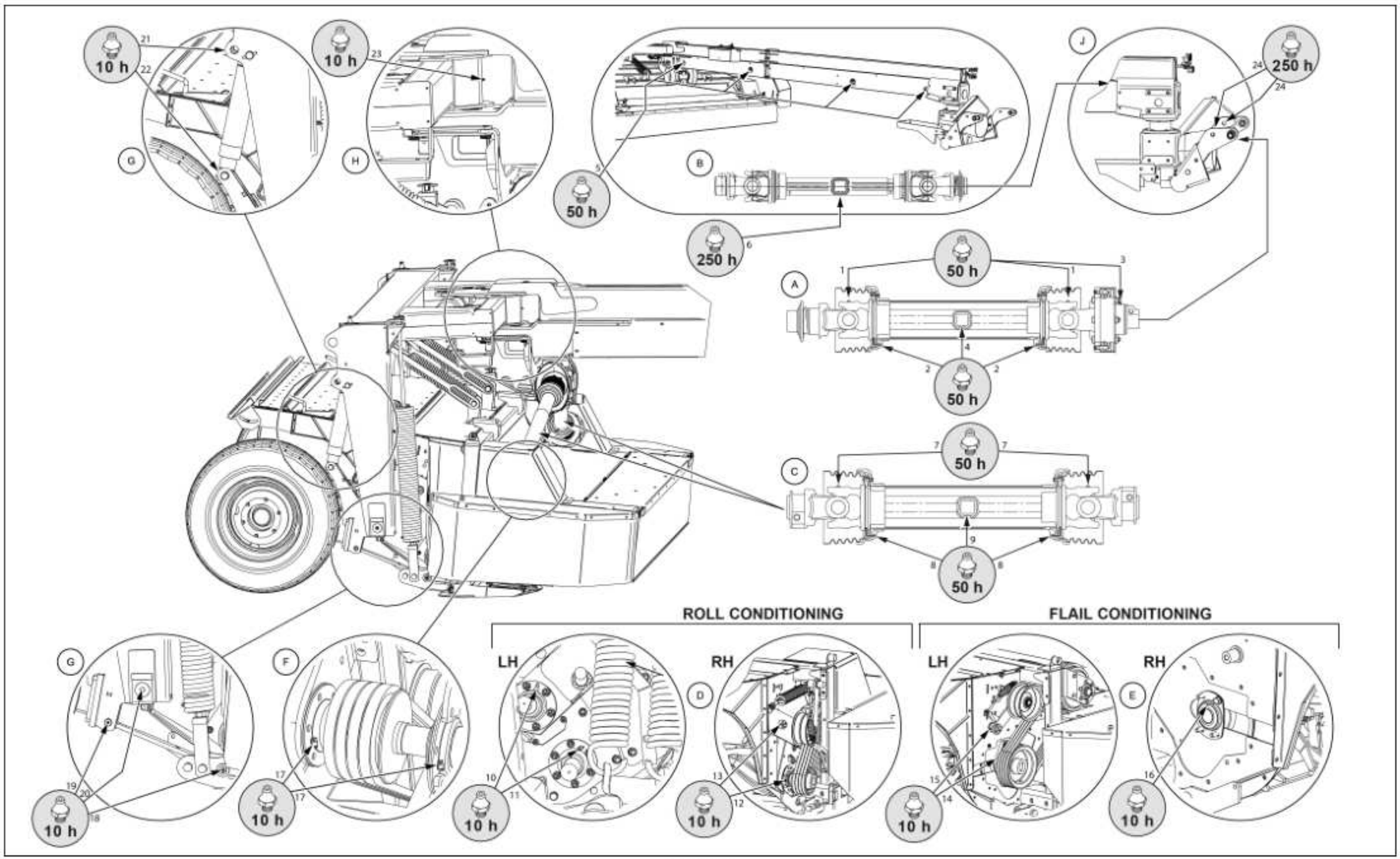
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Location 2:
Located on right-hand side of the trail frame, rearward of the flotation springs.



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