

INTRODUCTION

Torque values for metric O-Ring Boss (ORB) port connections

Metric thread	S-Series *		L-Series **	
	Ferrous N·m (lb ft) ± 10%	Non-Ferrous N·m (lb ft) ± 10%	Ferrous N·m (lb ft) ± 10%	Non-Ferrous N·m (lb ft) ± 10%
M8 x 1	10.5 (7.7)	6.3 (4.6)	8.5 (6.3)	5 (3.7)

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General specification

Workmaster™ 25S 25 Hp, without cab	NA
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	Model Workmaster™ 25S Hydrostatic
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Engine - Remove

Workmaster™ 25S 25 Hp, without cab

NA

⚠ WARNING

Hot liquid under pressure!

Scalding can result from fast removal of the radiator cap. Check and service the engine cooling system according to the maintenance instructions in this manual.

Failure to comply could result in death or serious injury.

W0163A

⚠ WARNING

Avoid injury!

Handle all parts carefully. Do not place your hands or fingers between parts. Use Personal Protective Equipment (PPE) as indicated in this manual, including protective goggles, gloves, and safety footwear.

Failure to comply could result in death or serious injury.

W0208A

⚠ WARNING

Heavy objects!

Lift and handle all heavy components using lifting equipment with adequate capacity. Always support units or parts with suitable slings or hooks. Make sure the work area is clear of all bystanders.

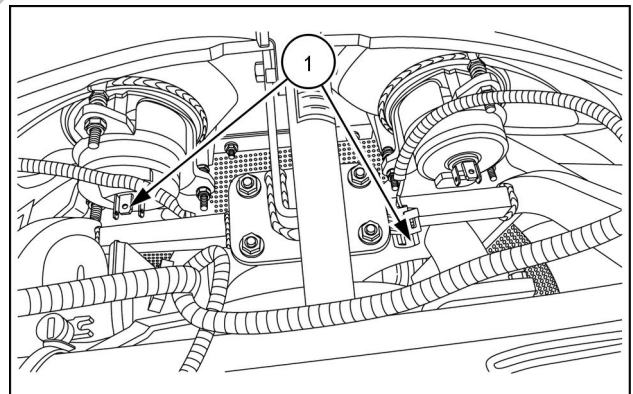
Failure to comply could result in death or serious injury.

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Prior operation:

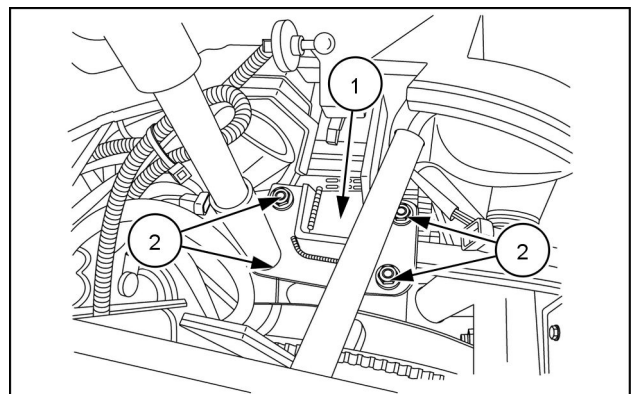
Engine hood and panels - Remove (90.100)

1. Disconnect the two lighting harness electrical connectors (1).



NHIL17CT01380AA 1

2. Remove the hood hinge bracket (1) by removing four M8 flange nuts (2).



NHIL17CT01958AA 2

Four-Wheel Drive (4WD) axle - Troubleshooting

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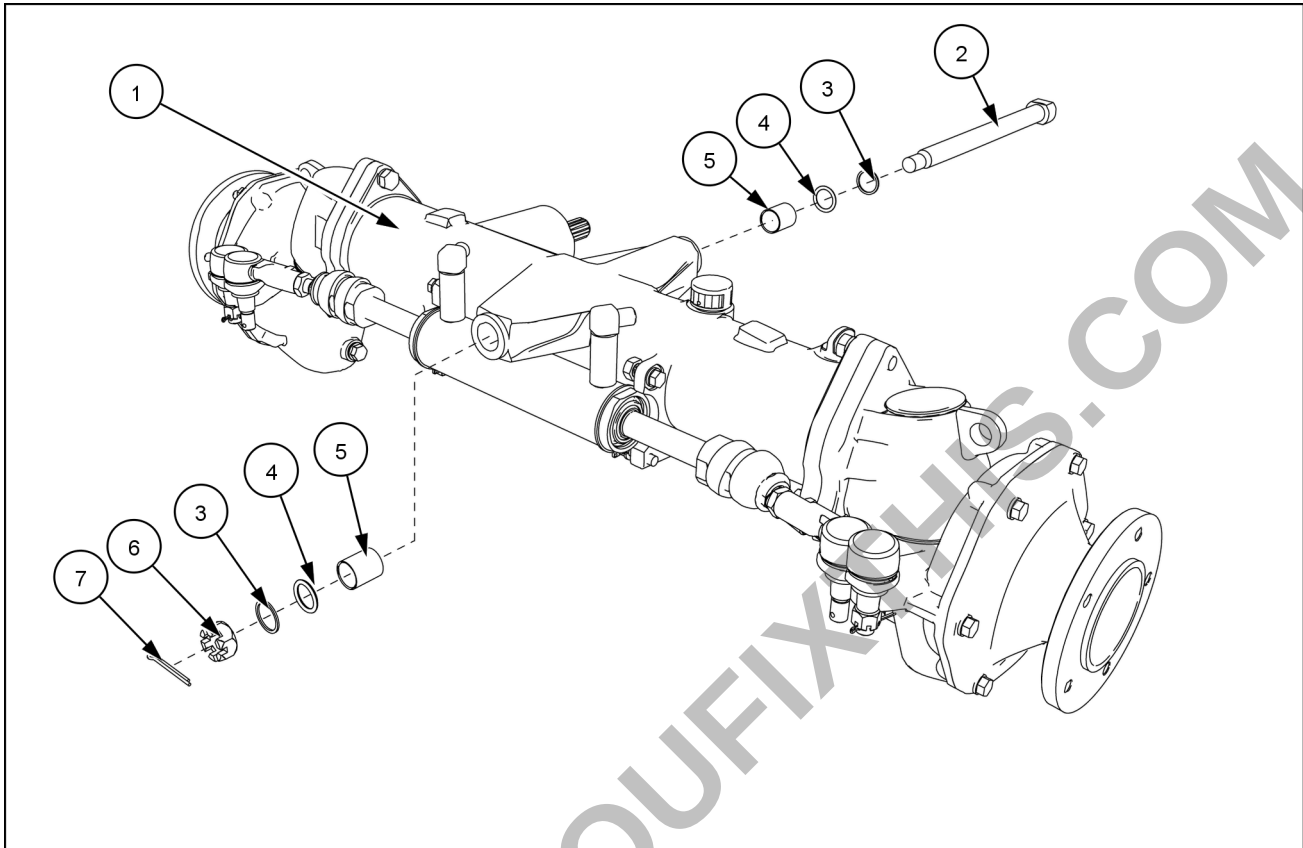
NA

Problem	Possible Cause	Correction
Abnormal tire wear	Incorrect tire inflation pressure	Adjust the tire inflation pressure to the specification.
	Incorrect tire toe-in	Adjust the toe-in to repair the cause.
Abnormal vibration from tires	Poorly adjusted tire inflation pressure	Adjust the tire inflation pressure to the specification.

Axle housing - Component localization Front axle assembly

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NA



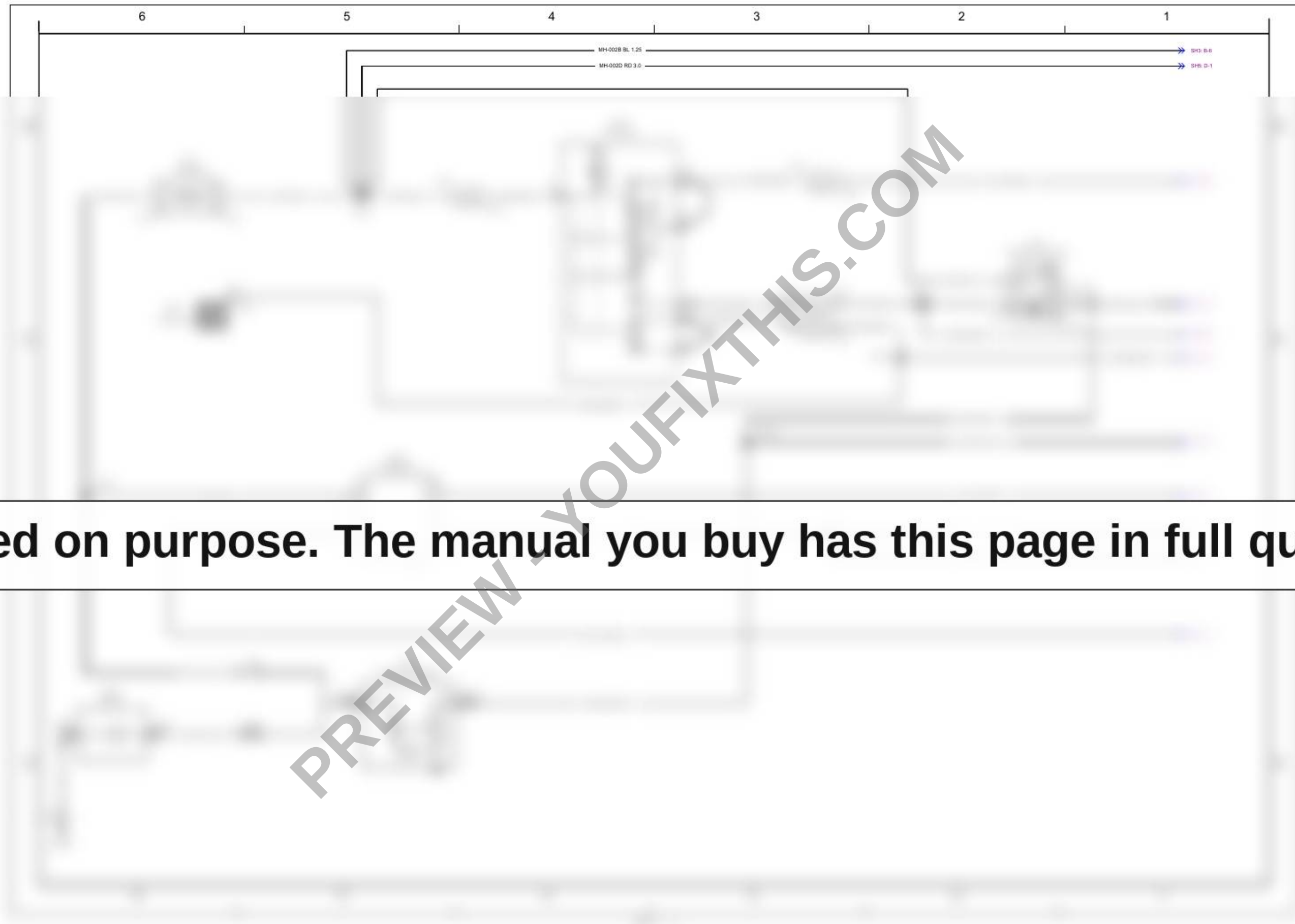
NHIL17CT00797FA 1

(1) Front axle assembly
(2) Front axle bolt

(3) Backup ring
(4) O-ring

(5) Bushing
(6) Castle nut

(7) Split pin

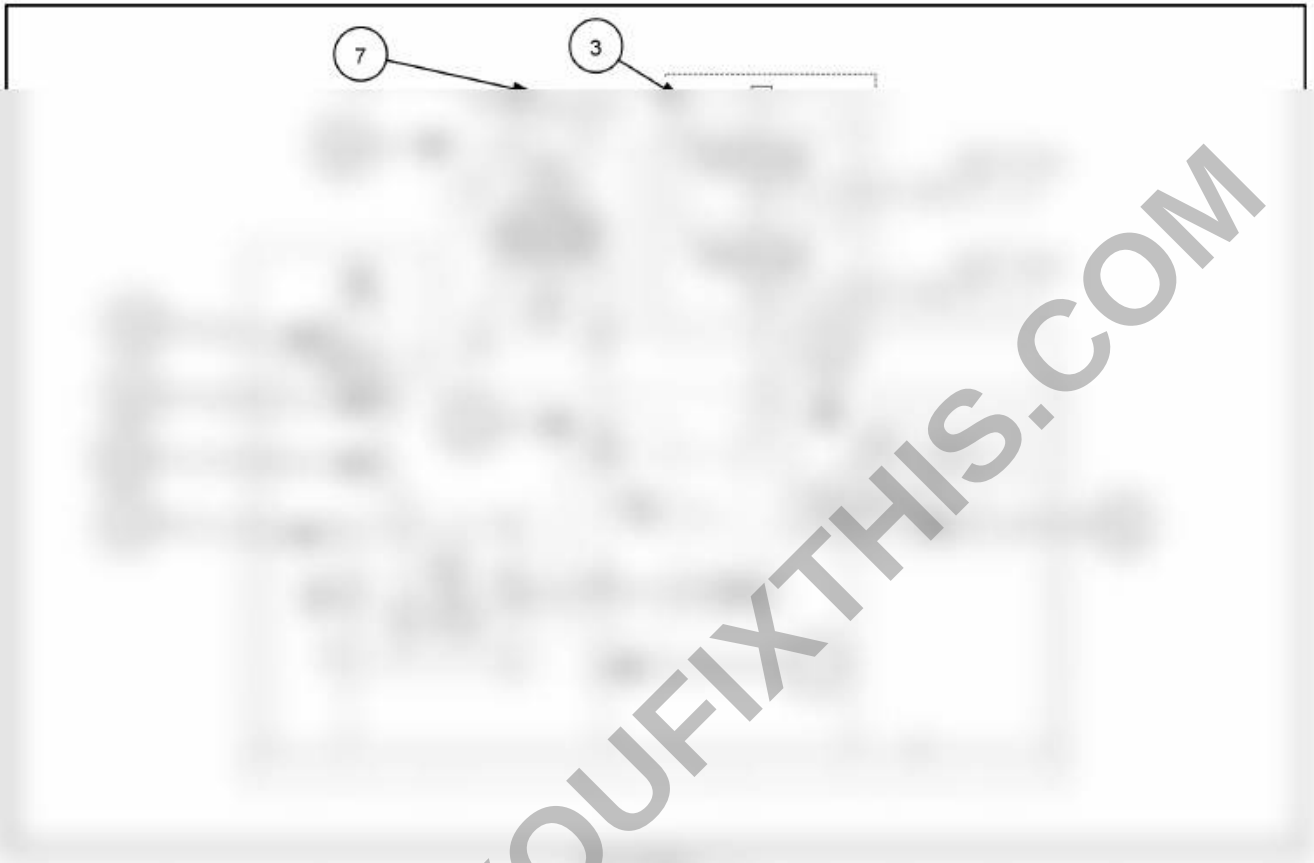


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Hydraulic systems - Hydraulic schema

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NA



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Fuel tanks - Remove

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NA

⚠ WARNING

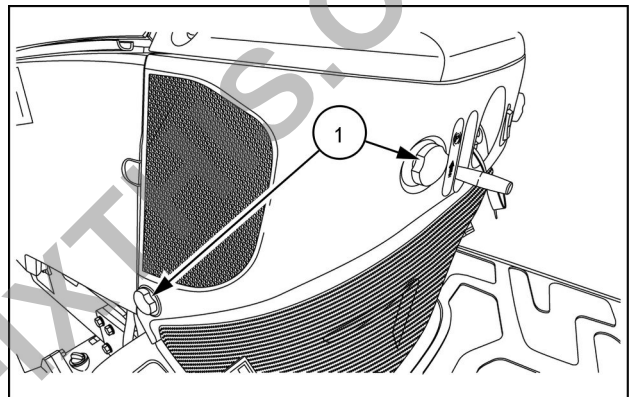
Heavy object!
ALWAYS use a hoist or get assistance to lift the component.
 Failure to comply could result in death or serious injury.

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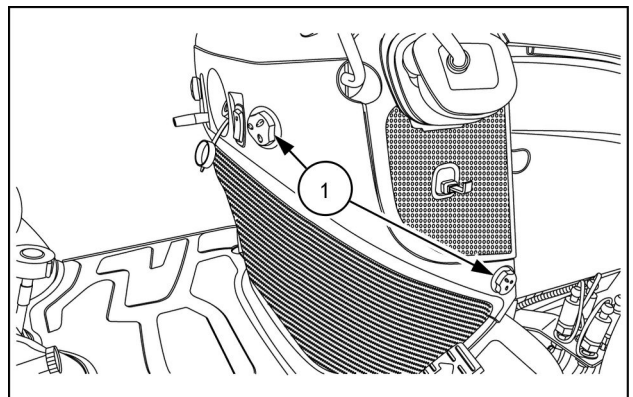
1. Drain the fuel tank.

NOTE: The capacity of the fuel tank is **25 L (6.6 US gal)**. Use a container of adequate capacity to store drained fuel.
 See **Hydrostatic transmission - Remove (29.202)**.

2. Open the body panel cover assembly by removing the four knobs (1).

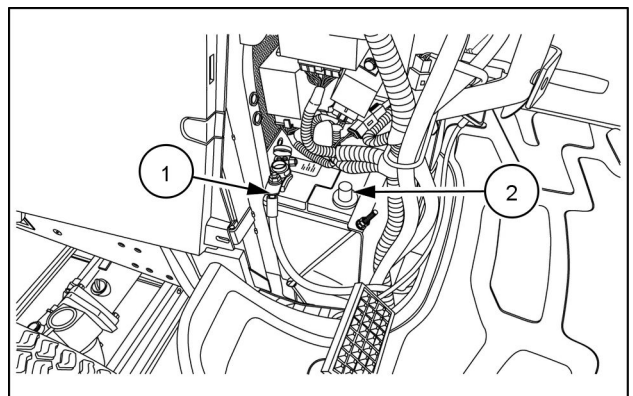


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NHIL17CT01244AA 2

3. Remove the negative (-) battery cable (1) from the negative (-) battery post (2).



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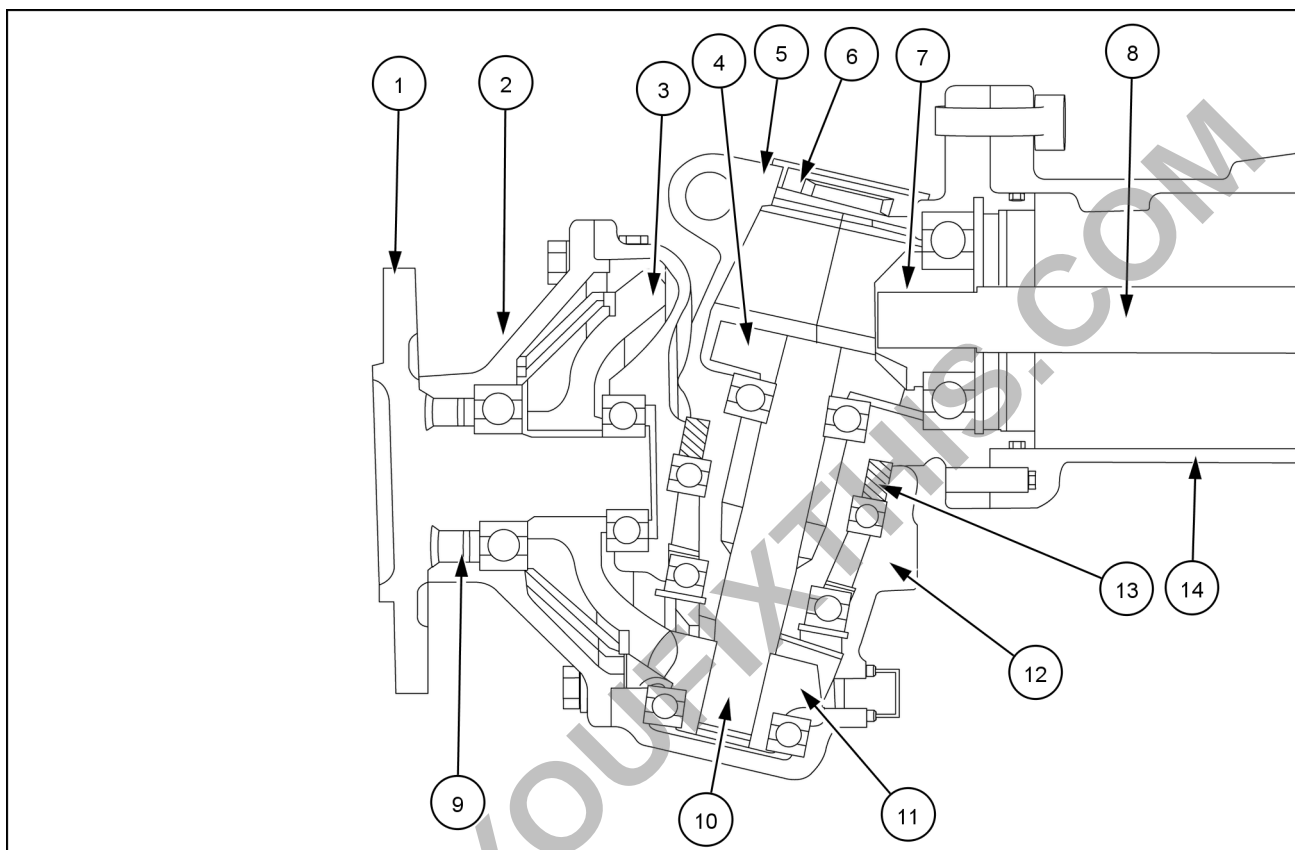
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Final drive hub, steering knuckles, and shafts - Component localization

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NA



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- | | | | | |
|-----------------------|-----------------------|------------------------|------------------------|------------------|
| (1) Front axle shaft | (4) Bevel gear, (19T) | (7) Bevel gear, (11T) | (10) King pin shaft | (13) Oil seal |
| (2) Gear case cover | (5) King pin case | (8) Differential shaft | (11) Bevel gear, (13T) | (14) Center case |
| (3) Bevel gear, (34T) | (6) Seal cover | (9) Oil seal | (12) Gear case | |

The knuckle section is mainly composed of the king pin section and final drive case section and has two functions: steering and driving.

The final gear is a bevel gear while a taper roller bearing is installed on the bottom of the king pin for improvement of steering and durability.

Also, separate oil seals are installed to the final drive case and front axle hub to secure stable oil film between the fixing part and moving part for quality sealing in a wet field and adverse conditions.



SERVICE MANUAL

Hydrostatic drive

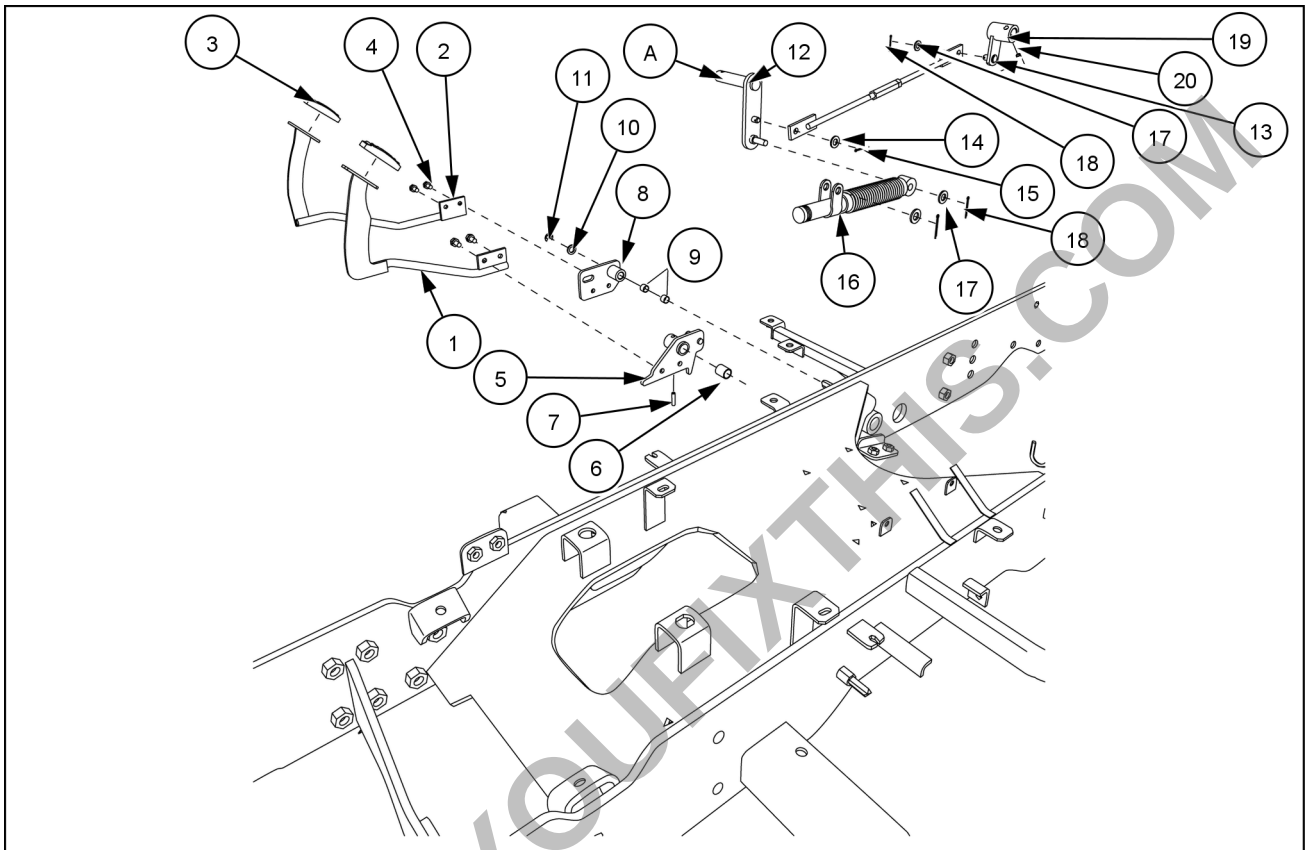
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Hydrostatic transmission - Component localization Hydrostatic transmission (HST) control linkage and pedals

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NA



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- | | | | |
|---------------------|--------------------|-------------------|---|
| (1) Front pedal | (6) Bushing | (11) Snap-ring | (16) Oil damper assembly |
| (2) Rear pedal | (7) Spring pin | (12) Damper arm | (17) Washer |
| (3) Pad | (8) Rear pedal arm | (13) Rod assembly | (18) Split pin |
| (4) Bolt, M10 x 20 | (9) Bushing | (14) Washer | (19) Hydrostatic transmission (HST) control arm |
| (5) Front pedal arm | (10) Washer | (15) Split pin | (20) Spring pin |

Hydrostatic transmission - Install

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NA

⚠ WARNING

Heavy object!
ALWAYS use a hoist or get assistance to lift the component.
Failure to comply could result in death or serious injury.

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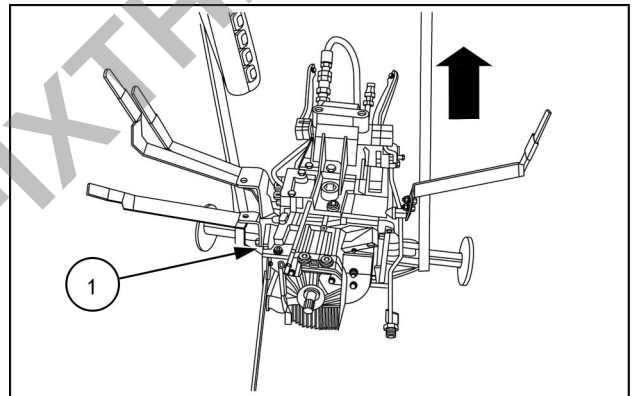
⚠ WARNING

Jack stands can slip or fall over. Dropping, tipping, or slipping of machine or its components is possible.
DO NOT work under a vehicle supported by jack stands only. Park machine on a level surface. Block wheels. Support machine with safety stands.
Failure to comply could result in death or serious injury.

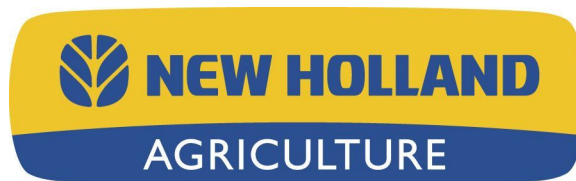
W0069A

Hydrostatic Transmission(HST) removal

1. Lift the transmission assembly (1) from the transmission stand.



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SERVICE MANUAL

Brakes and controls

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Hydraulic systems - 35

Fixed displacement pump - 104

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Three-point hitch control valve - Install Hydraulic Power Lift (HPL) control valve

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Steering hand pump - Remove the hydraulic unit

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NA

⚠ WARNING

Avoid injury!

Handle all parts carefully. Do not place your hands or fingers between parts. Use Personal Protective Equipment (PPE) as indicated in this manual, including protective goggles, gloves, and safety footwear.

Failure to comply could result in death or serious injury.

W0208A

⚠ WARNING

Pressurized hydraulic fluid can penetrate the skin and cause severe injuries.

Hydraulic fluid is under extreme pressure. Rest the bucket or attachment on the ground. Shut the engine off, turn the key on, and move the hydraulic control lever through all movements several times to relieve residual pressure in the system.

Failure to comply could result in death or serious injury.

W0161A

⚠ WARNING

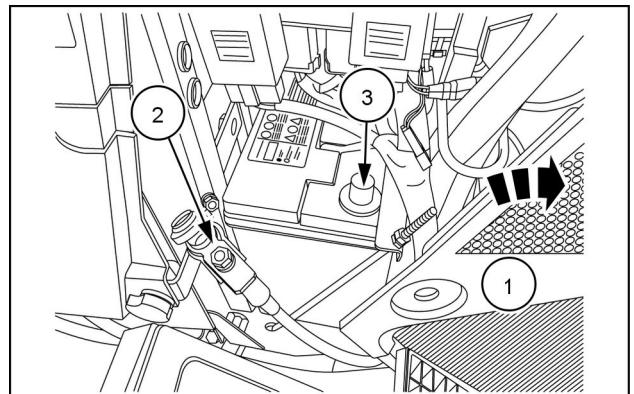
Escaping fluid!

Hydraulic fluid or diesel fuel leaking under pressure can penetrate the skin and cause infection or other injury. To prevent personal injury: Relieve all pressure before disconnecting fluid lines or performing work on the hydraulic system. Before applying pressure, make sure all connections are tight and all components are in good condition. Never use your hand to check for suspected leaks under pressure. Use a piece of cardboard or wood for this purpose. If injured by leaking fluid, see your doctor immediately.

Failure to comply could result in death or serious injury.

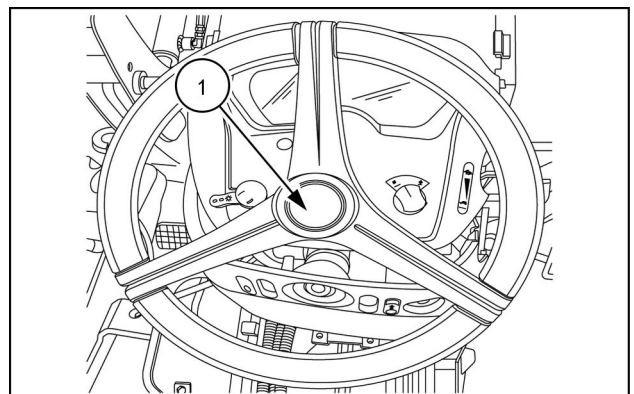
W0178A

1. Open the body panel cover assembly (1) by loosening the four knobs, then disconnect the negative (-) battery cable (2) from the negative (-) battery terminal (3).

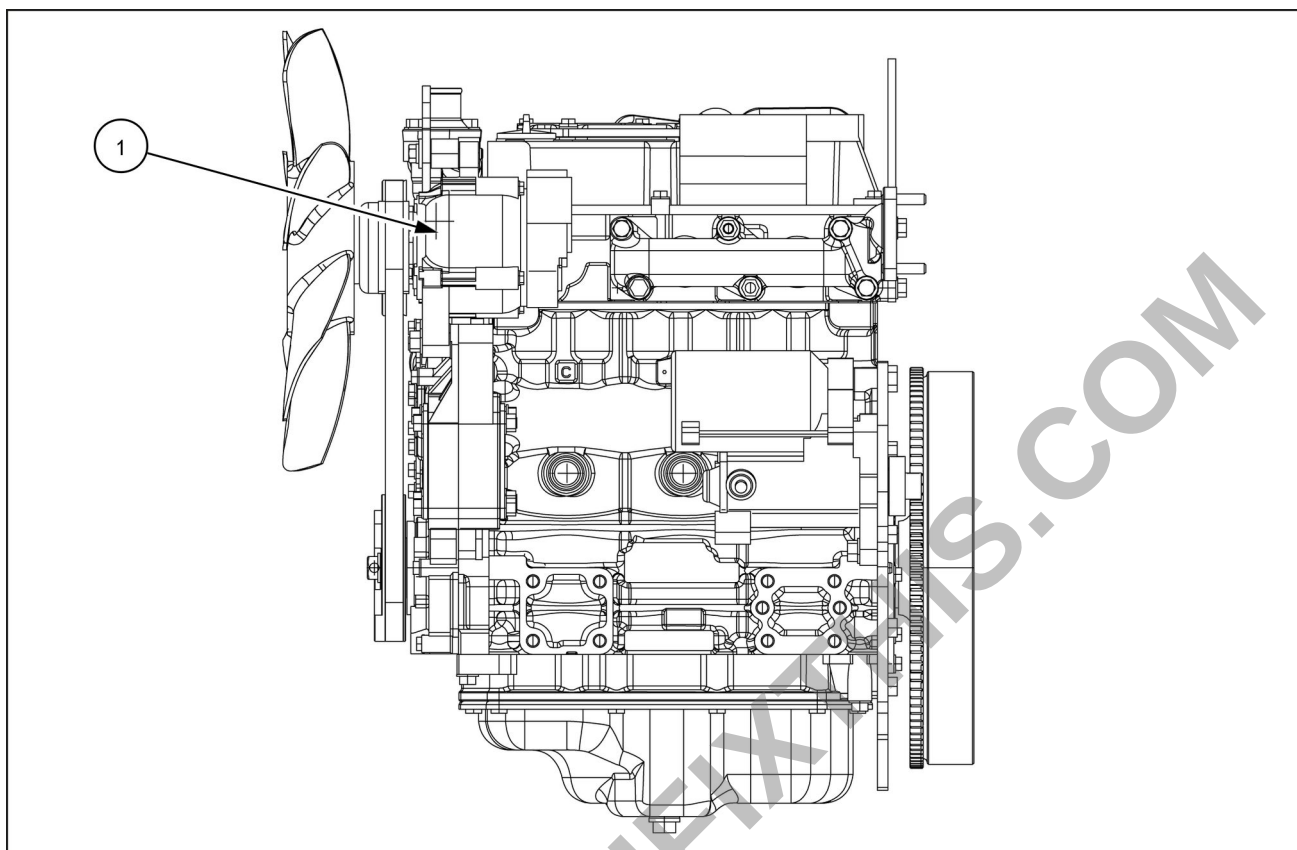


NHIL17CT01076AA 1

2. Remove the center cap (1).



NHIL17CT01078AA 2



NHIL17CT01205FA 3

(1) Alternator **G-002**

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Engine starter - Remove

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NA

⚠ WARNING

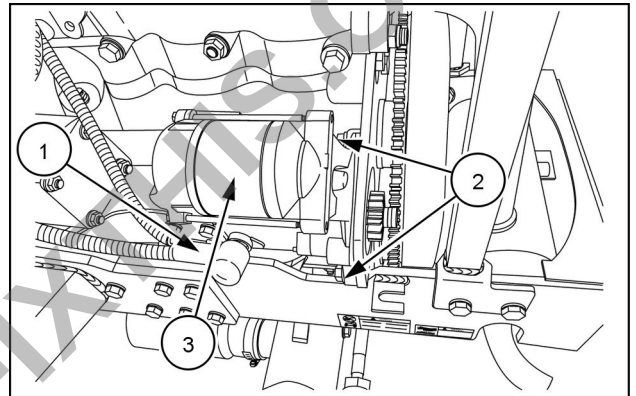
Improper operation or service of this machine can result in an accident.

Before working on any component(s) of the electrical circuit, put the starter switch key in the off (shut down) position. When disconnecting batteries, always disconnect the negative (-) cable first. When reconnecting batteries, always connect the negative (-) cable last.

Failure to comply could result in death or serious injury.

W0264A

1. Remove the negative (-) battery from the negative (-) battery terminal.
2. Disconnect the electrical wiring harnesses **(1)**.
3. Remove the two mounting bolts **(2)**.
4. Remove the starter **(3)**.



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Fuel injection system - Service instruction - Driver solenoid

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NA

Description

When the ignition key switch is placed in the START po-



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PREVIEW -

Parking brake warning light switch and relay - Test

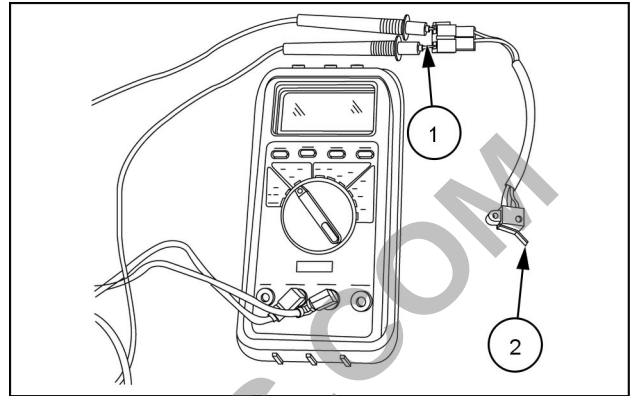
Workmaster™ 25S 25 Hp, without cab

NA

Test:

1. Use an ohmmeter to test for continuity of the switch terminals **(1)**.
2. With the switch plunger **(2)** extended, there should not be continuity across the switch terminals.
3. With the switch plunger **(2)** in the retracted position, continuity should exist across the terminals of the switch.

NOTICE: If test results are not as described, switch is faulty and needs to be replaced.



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