

# **SERVICE MANUAL**

## **T4.80F / T4.80V / T4.90F / T4.90V T4.100F / T4.100V / T4.110F / T4.110V Tier 4A (interim) Tractor**

*T4.80F with cab PIN ZGLH01657 and above; T4.80F without cab PIN ZGLH01068 and above;  
T4.80V with cab PIN ZFLJ01935 and above; T4.80V without cab PIN ZFLJ02353 and above;  
T4.90F with cab PIN ZGLH01601 and above; T4.90F without cab PIN ZGLH00695 and above;  
T4.90V with cab PIN ZGLJ03134 and above; T4.90V without cab PIN ZGLJ02059 and above;  
T4.100F with cab PIN ZGLH00384 and above; T4.100F without cab PIN ZGLH00644 and above;  
T4.100V with cab PIN ZGLJ02249 and above; T4.100V without cab PIN ZGLJ02246 and above;  
T4.110F with cab PIN ZFLH00040 and above; T4.110F without cab PIN ZFLH02101 and above;  
T4.110V with cab PIN ZGLJ01295 and above; T4.110V without cab PIN ZFLJ00805 and above*



## **SERVICE MANUAL**

**T4.100F With cab [ZGLH00384 - ], T4.100F Without cab [ZGLH00644 - ],  
T4.100V With cab [ZGLJ02249 - ], T4.100V Without cab [ZGLJ02246 - ],  
T4.110F With cab [ZFLH00040 - ], T4.110F Without cab [ZFLH02101 - ],  
T4.110V With cab [ZGLJ01295 - ], T4.110V Without cab [ZFLJ00805 - ],  
T4.80F With cab [ZGLH01657 - ], T4.80F Without cab [ZGLH01068 - ], T4.80V  
With cab [ZFLJ01935 - ], T4.80V Without cab [ZFLJ02353 - ], T4.90F With  
cab [ZGLH01601 - ], T4.90F Without cab [ZGLH00695 - ], T4.90V With cab  
[ZGLJ03134 - ], T4.90V Without cab [ZGLJ02059 - ]**

## Link Product / Engine

| Product                            | Market Product | Engine         |
|------------------------------------|----------------|----------------|
| T4.100F With cab [ZGLH00384 - ]    | North America  | F5DFL413K*A010 |
| T4.100F Without cab [ZGLH00644 - ] | North America  | F5DFL413K*A010 |
| T4.110F With cab [ZFLH00040 - ]    | North America  | F5DFL413J*A011 |
| T4.110F Without cab [ZFLH02101 - ] | North America  | F5DFL413J*A011 |
| T4.80F With cab [ZGLH01657 - ]     | North America  | F5DFL413A*E009 |
| T4.80F Without cab [ZGLH01068 - ]  | North America  | F5DFL413A*E009 |
| T4.90F With cab [ZGLH01601 - ]     | North America  | F5DFL413L*A007 |
| T4.90F Without cab [ZGLH00695 - ]  | North America  | F5DFL413L*A007 |
| T4.100V With cab [ZGLJ02249 - ]    | North America  | F5DFL413K*A010 |
| T4.100V Without cab [ZGLJ02246 - ] | North America  | F5DFL413K*A010 |
| T4.110V With cab [ZGLJ01295 - ]    | North America  | F5DFL413J*A011 |
| T4.110V Without cab [ZFLJ00805 - ] | North America  | F5DFL413J*A011 |
| T4.80V With cab [ZFLJ01935 - ]     | North America  | F5DFL413A*E009 |
| T4.80V Without cab [ZFLJ02353 - ]  | North America  | F5DFL413A*E009 |
| T4.90V With cab [ZGLJ03134 - ]     | North America  | F5DFL413L*A007 |
| T4.90V Without cab [ZGLJ02059 - ]  | North America  | F5DFL413L*A007 |

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# INTRODUCTION

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## **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.



## **SERVICE MANUAL**

### **Engine**

**T4.100F With cab [ZGLH00384 - ], T4.100F Without cab [ZGLH00644 - ],  
T4.100V With cab [ZGLJ02249 - ], T4.100V Without cab [ZGLJ02246 - ],  
T4.110F With cab [ZFLH00040 - ], T4.110F Without cab [ZFLH02101 - ],  
T4.110V With cab [ZGLJ01295 - ], T4.110V Without cab [ZFLJ00805 - ],  
T4.80F With cab [ZGLH01657 - ], T4.80F Without cab [ZGLH01068 - ], T4.80V  
With cab [ZFLJ01935 - ], T4.80V Without cab [ZFLJ02353 - ], T4.90F With  
cab [ZGLH01601 - ], T4.90F Without cab [ZGLH00695 - ], T4.90V With cab  
[ZGLJ03134 - ], T4.90V Without cab [ZGLJ02059 - ]**

## Engine - Remove from transmission

|                                    |  |
|------------------------------------|--|
| T4.100F Without cab [ZGLH00644 - ] |  |
| T4.110F Without cab [ZFLH02101 - ] |  |
| T4.80F Without cab [ZGLH01068 - ]  |  |
| T4.90F Without cab [ZGLH00695 - ]  |  |

### ⚠ WARNING

#### Burn hazard!

Be very careful to avoid contact with hot fluids. If fluid is extremely hot, allow it to cool to a moderately warm temperature before proceeding.

Failure to comply could result in death or serious injury.

W0362A

### ⚠ WARNING

#### Hot surface possible!

Wait for all components to cool before performing any operation.

Failure to comply could result in death or serious injury.

W0251A

### ⚠ CAUTION

#### Hot area!

Use care when working near hot components. Wear protective gloves.

Failure to comply could result in minor or moderate injury.

C0034A

### ⚠ WARNING

#### Chemical hazard!

When handling fuel, lubricants, and other service chemicals, follow the manufacturer's instructions. Wear Personal Protective Equipment (PPE) as instructed. Do not smoke or use open flame. Collect fluids in proper containers. Obey all local and environmental regulations when disposing of chemicals.

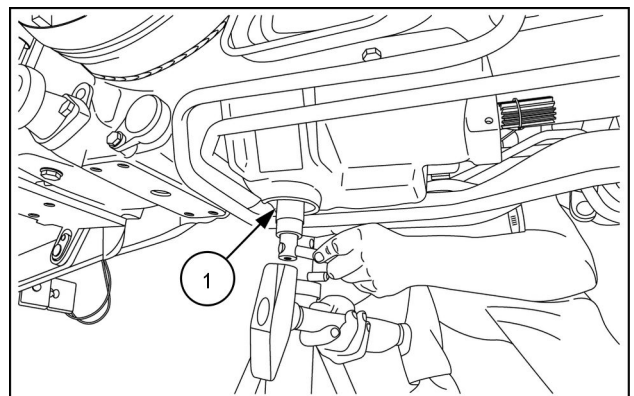
Failure to comply could result in death or serious injury.

W0371A

### Prior operation:

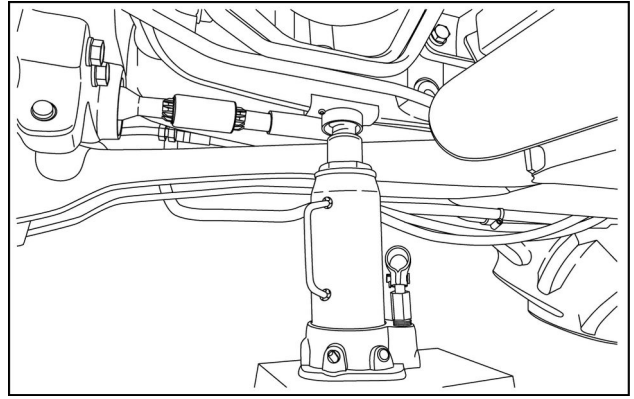
A. Remove the front ballast - See **Front ballast - Remove (39.140)**.

1. Carefully clean the area around the central drain plug (1) on the transmission.
2. Use a suitable container to collect the transmission oil.
3. Loosen the central drain plug (1) on the transmission and drain the transmission oil.
4. Replace the central drain plug (1) on the transmission.
5. Tighten the central drain plug (1) on the transmission.
6. Carefully clean all the parts contaminated by any leaking hydraulic fluid.
7. Remove the operator platform – See **Platform - Remove (90.110)**.
8. Remove the transmission drive shaft going from the transmission to the front axle - See **Front drive shaft - Remove (23.314)**.



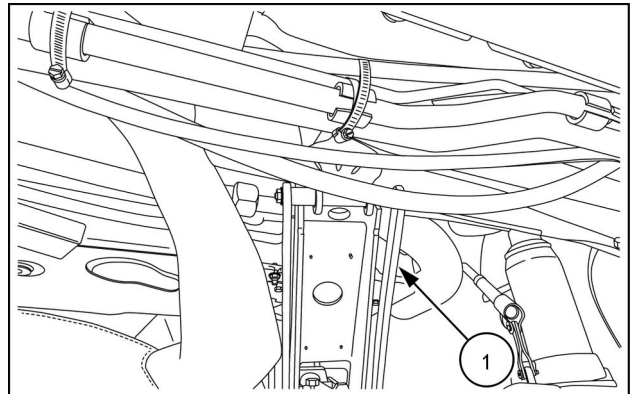
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9. Use a suitable hydraulic lift and position it under the oil sump of the engine.



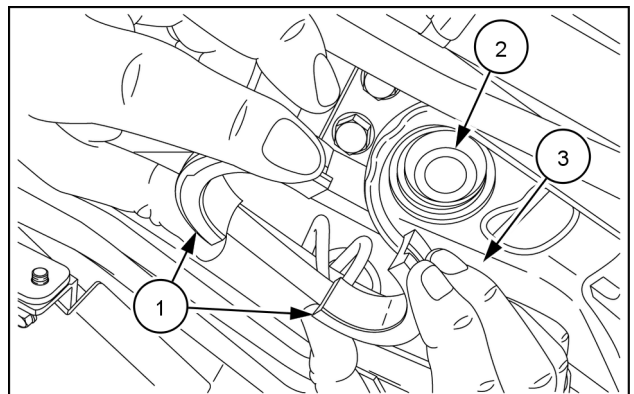
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10. Use a second suitable hydraulic lift and position it under the swinging arm (1).



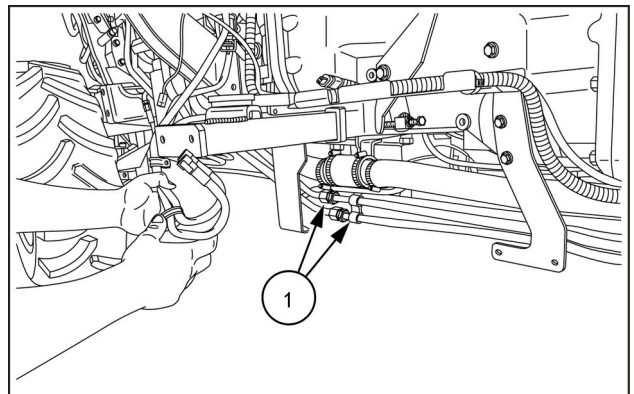
MOIL16TR01452AA 3

11. Remove the snap ring fixing the half bushes (1) to the rear ball joint (2) of the swinging arm (3).
12. Push down on the hydraulic lifts and extract the half bushes (1) on the rear ball joint (2).



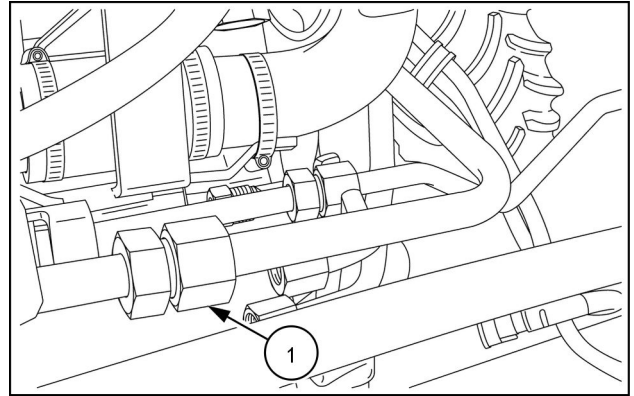
MOIL16TR01453AA 4

13. Carefully clean the area around the couplings (1) on the intermediate delivery and return pipes on the transmission oil exchanger.
14. Use a suitable container to collect the transmission oil.
15. Loosen the couplings (1) on the intermediate delivery and return pipes on the transmission oil exchanger.



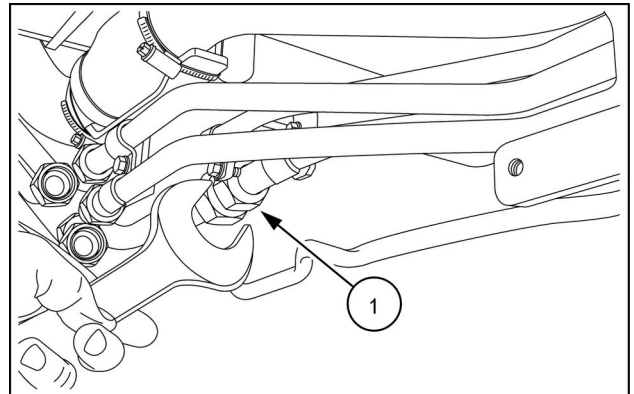
MOIL16TR01454AA 5

16. Carefully clean the area around the coupling **(1)** of the intermediate differential oil delivery pipe on the left-hand side of the vehicle.
17. Use a suitable container to collect the transmission oil.
18. Loosen the coupling **(1)** of the intermediate differential oil delivery pipe on the left-hand side of the vehicle.



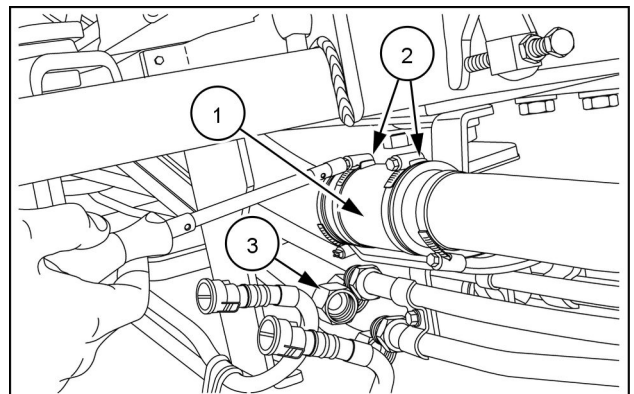
MOIL16TR01455AA 6

19. Carefully clean the area around the coupling **(1)** of the intermediate delivery pipe connected to the transmission oil filter.
20. Use a suitable container to collect the transmission oil.
21. Loosen the coupling **(1)** of the intermediate delivery pipe connected to the transmission oil filter.
22. Carefully clean all the parts contaminated by any leaking hydraulic fluid.

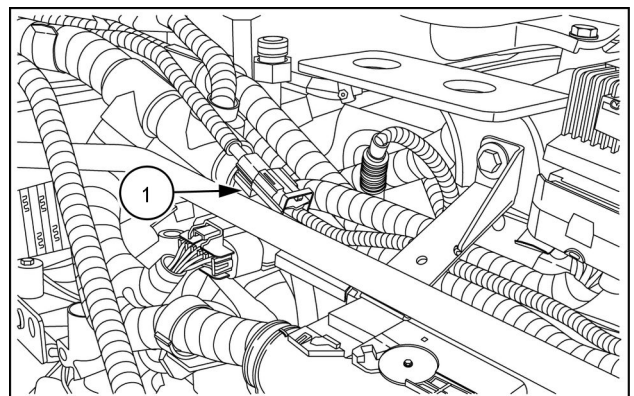


MOIL16TR01456AA 7

23. Carefully clean the area around the sleeve **(1)** of the intermediate delivery pipe connected to the transmission oil filter.
24. Use a suitable container to collect the transmission oil.
25. Loosen the two screw collars **(2)** on the sleeve **(1)** of the intermediate delivery pipe connected to the transmission oil filter.
26. Loosen the screw collar **(3)** fixing the sleeve **(1)** of the intermediate delivery pipe connected to the transmission oil filter.
27. Disconnect the sleeve **(1)** of the intermediate delivery pipe connected to the transmission oil filter.
28. Carefully clean all the parts contaminated by any leaking hydraulic fluid.
29. Carefully clean the area around the connector **(1)** of the steering sensor.
30. Disconnect the steering sensor connector **(1)**.
31. Disconnect the connector cable **(1)** from the steering sensor.

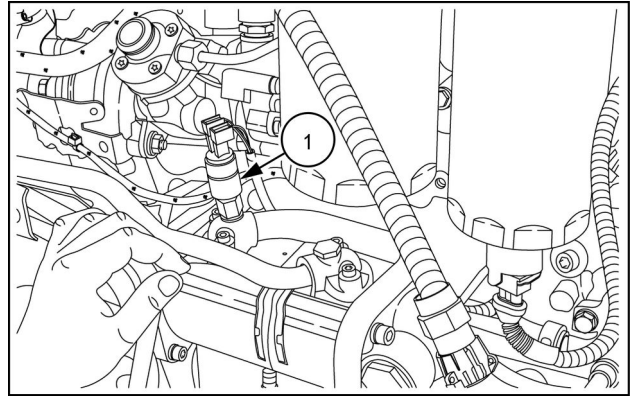


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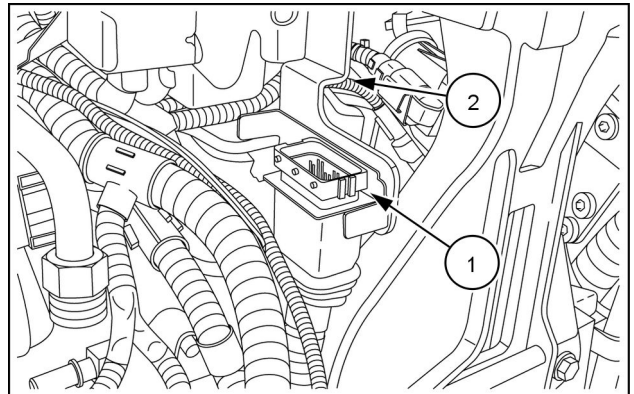
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32. Carefully clean the area around the connector **(1)** of the hydraulic fluid pressure sensor.
33. Disconnect the connector **(1)** of the hydraulic fluid pressure sensor.
34. Disconnect the connector cable **(1)** from the hydraulic fluid pressure sensor.



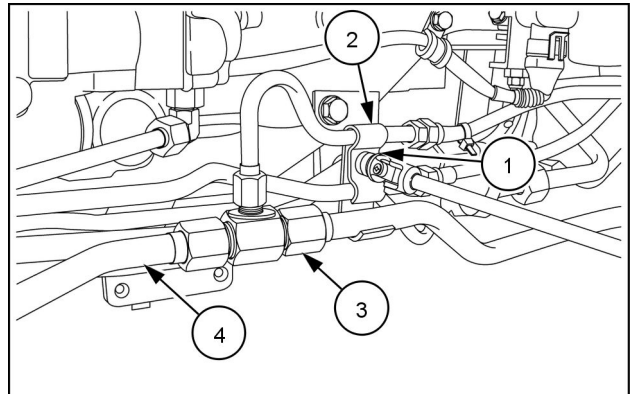
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35. Carefully clean the area around the connector **(1)**.
36. Disconnect connector **(1)**.
37. Unclamp the connector **(1)** from the support bracket **(2)**.



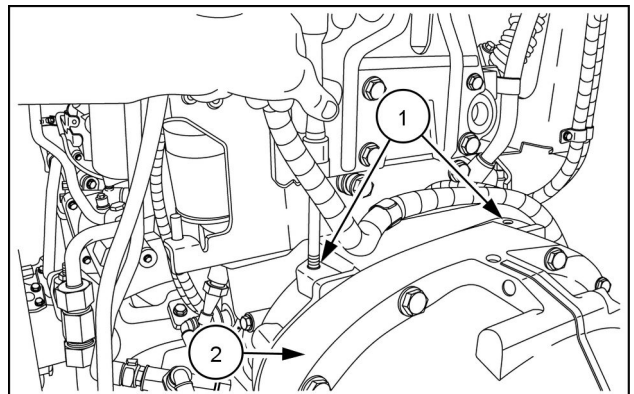
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38. Loosen the screw **(1)** and remove the collar **(2)**.
39. Loosen the sleeve **(3)** of the oil delivery pipe **(4)**.



MOIL16TR01462AA 12

40. Carefully clean the area around the two holes **(1)** on the upper side of the clutch bell **(2)**.
41. Restore the thread in the two holes **(1)** on the upper side of the clutch bell **(2)**.



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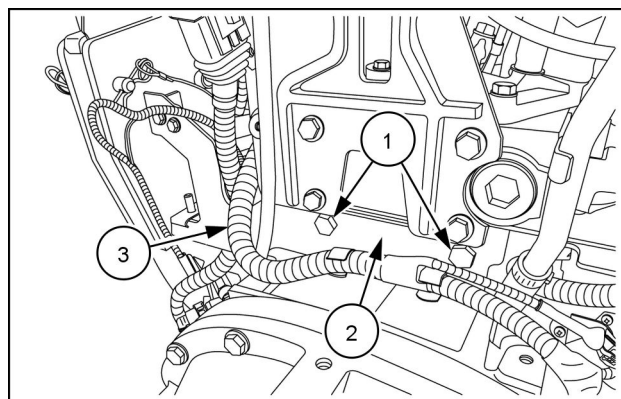
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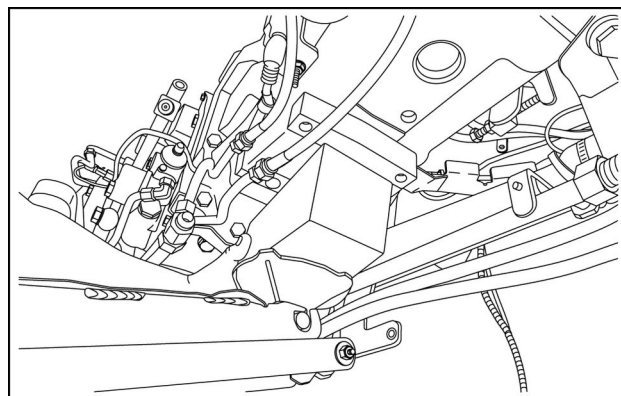
**Thank you so much for reading**

42. Loosen the two screws **(1)** securing the bracket **(2)**.
43. Remove the bracket **(2)** and the cable **(3)**.
44. Arrange two eyebolts suitable for lifting the engine.
45. Prepare a hoist and chains/straps that are suitable for lifting the engine.



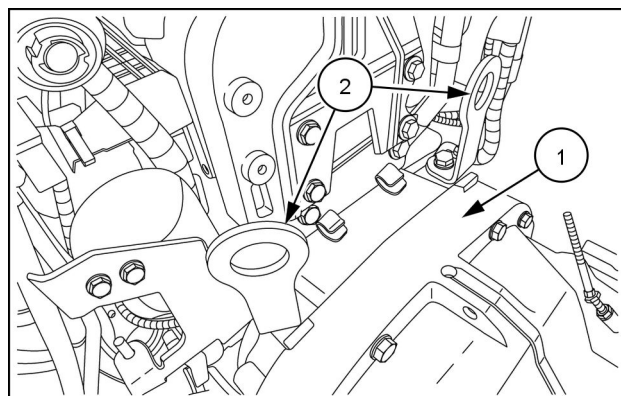
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46. Place a suitable lift under the transmission housing.



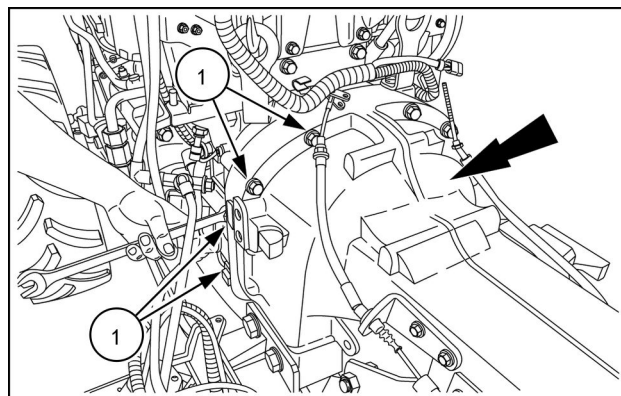
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47. Clean the area around the clutch bell **(1)**.
48. Correctly position the two eyebolts **(1)**, and using the correct screws, lock into the holes on the upper face of the clutch bell **(2)**.
49. Correctly hook the chains/straps to the eyebolts **(1)**.
50. Use a suitable tool to separate the engine from the transmission.



MOIL16TR01465AA 16

51. Loosen the four fastening screws **(1)** on the left-hand side of the clutch bell.
52. Repeat for the four fastening screws on the right-hand side of the clutch bell.



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