

SERVICE MANUAL

E17C Mini Excavator

Part number 48127424
English
February 2017





SERVICE MANUAL

E17C Canopy - Tier IV engine

Contents

INTRODUCTION

Engine.....	10
[10.001] Engine and crankcase	10.1
[10.102] Pan and covers	10.2
[10.106] Valve drive and gears	10.3
[10.101] Cylinder heads	10.4
[10.105] Connecting rods and pistons.....	10.5
[10.103] Crankshaft and flywheel.....	10.6
[10.216] Fuel tanks	10.7
[10.206] Fuel filters	10.8
[10.218] Fuel injection system.....	10.9
[10.202] Air cleaners and lines	10.10
[10.254] Intake and exhaust manifolds and muffler	10.11
[10.400] Engine cooling system	10.12
[10.414] Fan and drive	10.13
[10.304] Engine lubrication system.....	10.14
[10.408] Oil cooler and lines.....	10.15
Hydraulic systems.....	35
[35.000] Hydraulic systems.....	35.1
[35.300] Reservoir, cooler, and filters.....	35.2
[35.106] Variable displacement pump	35.3
[35.359] Main control valve.....	35.4
[35.357] Pilot system	35.5
[35.355] Hydraulic hand control	35.6
[35.356] Hydraulic foot control.....	35.7
[35.352] Hydraulic swing system	35.8
[35.353] Hydraulic travel system	35.9

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[35.354] Hydraulic central joint	35.10
[35.736] Boom hydraulic system	35.11
[35.737] Dipper hydraulic system.....	35.12
[35.738] Excavator and backhoe bucket hydraulic system.....	35.13
[35.734] Tool quick coupler hydraulic system	35.14
[35.739] Swing arm hydraulic system	35.15
[35.741] Dozer blade cylinders	35.16
[35.948] Frame positioning extending	35.17
Frames and ballasting	39
[39.140] Ballasts and supports	39.1
Tracks and track suspension.....	48
[48.130] Track frame and driving wheels.....	48.1
[48.100] Tracks	48.2
[48.134] Track tension units	48.3
[48.138] Track rollers	48.4
Electrical systems	55
[55.000] Electrical system	55.1
[55.100] Harnesses and connectors.....	55.2
[55.525] Cab engine controls.....	55.3
[55.201] Engine starting system	55.4
[55.301] Alternator.....	55.5
[55.302] Battery.....	55.6
[55.202] Cold start aid	55.7
[55.011] Fuel tank system	55.8
[55.012] Engine cooling system	55.9
[55.013] Engine oil system	55.10
[55.512] Cab controls.....	55.11
[55.524] Cab controls (Lift arm, Boom, Dipper, Bucket).....	55.12

[55.404] External lighting	55.13
[55.405] External lighting switches and relays	55.14
[55.408] Warning indicators, alarms, and instruments	55.15
Booms, dippers, and buckets	84
[84.910] Boom	84.1
[84.912] Dipper arm	84.2
[84.100] Bucket.....	84.3
Dozer blade and arm.....	86
[86.110] Dozer blade	86.1
Platform, cab, bodywork, and decals	90
[90.160] Cab interior trim and panels.....	90.1
[90.114] Operator protections	90.2
[90.120] Mechanically-adjusted operator seat.....	90.3
[90.100] Engine hood and panels	90.4
[90.105] Machine shields and guards	90.5



INTRODUCTION

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 CONSTRUCTION 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.

Safety rules - General information

Cleaning

Clean the metal parts with cleaning solution that meets the standard and steam cleaning. (except for bearings)

After cleaning, dry well, and inject oil in all parts.

Also inject oil into the bearings after drying.

Inspection

When disassembling parts, check all the parts.

If there are any worn or damaged parts, replace them.

Inspect carefully to prevent initial breakdowns.

Bearing

Replace any loose bearings.

Air dry bearings before installing them.

Needle bearing

When inserting needle bearings, be very careful not to damage them.

Apply grease to the section where the needle bearing will be inserted.

Gear

Check that there is no wear and no damage.

Oil seal, O-ring, gasket

Always install new oil seals, O-rings, and gaskets.

Apply grease to sections where oil seals and O-rings will be inserted.

Shaft

Check that there is no wear and no damage.

Check the bearings and check for damaged oil seals on the shaft.

Service parts

Install NEW HOLLAND CONSTRUCTION genuine service parts.

When placing an order, check the parts catalog. It contains the NEW HOLLAND CONSTRUCTION genuine part numbers.

Any breakdowns arising from the installation of non-genuine parts are not covered by the warranty.

Lubricants (fuel, hydraulic oil)

Use the oil from the specified company or specified in the operator's manual or service Manual.

Any breakdowns arising from any fuel or hydraulic oil other than those specified are not covered by the warranty.



SERVICE MANUAL

Engine

E17C Canopy - Tier IV engine

Engine - Remove

▲ WARNING

Avoid injury!

Shut off the engine, remove the key, and make sure all machine motion stops before you service the machine.

Failure to comply could result in death or serious injury.

W1128B

▲ WARNING

Chemical hazard!

Use caution when opening the quick coupler cap from the load port. There may be product left in the port.

Failure to comply could result in death or serious injury.

W1039A

▲ WARNING

Crushing hazard!

The lifting systems must be operated by qualified personnel who are aware of the correct procedures to follow. Make sure all lifting equipment is in good condition, and all hooks are equipped with safety latches.

Failure to comply could result in death or serious injury.

W0256A

▲ 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.

W0398A

▲ WARNING

Burn hazard!

Before performing any service on the hydraulic system, you must allow it to cool. Hydraulic fluid temperature should not exceed 40 °C (104 °F).

Failure to comply could result in death or serious injury.

W0241A

▲ 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

▲ 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

Set the battery disconnect switch to O position (OFF position) to cut off any power supply in the electrical system of the machine (for details, see **Mechanical battery isolator - Dynamic description (55.302)**).

Remove the side panels (for details, see **Side panels - Remove (90.100)**).

Remove the engine access door (for details, see **Engine hood - Remove (90.105)**).

Remove the canopy (for details, see **Canopy assembly - Remove (90.114)**).

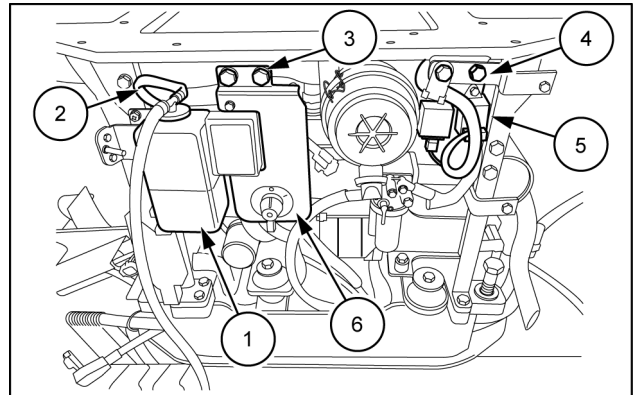
Remove the operator seat (for details, see **Operator seat - Remove (90.120)**).

Remove the operator seat base trim panel (for details, see **Operator seat base trim panel - Remove - Platform (90.160)**).

Remove the radiator (for details, see **Radiator - Remove (10.400)**).

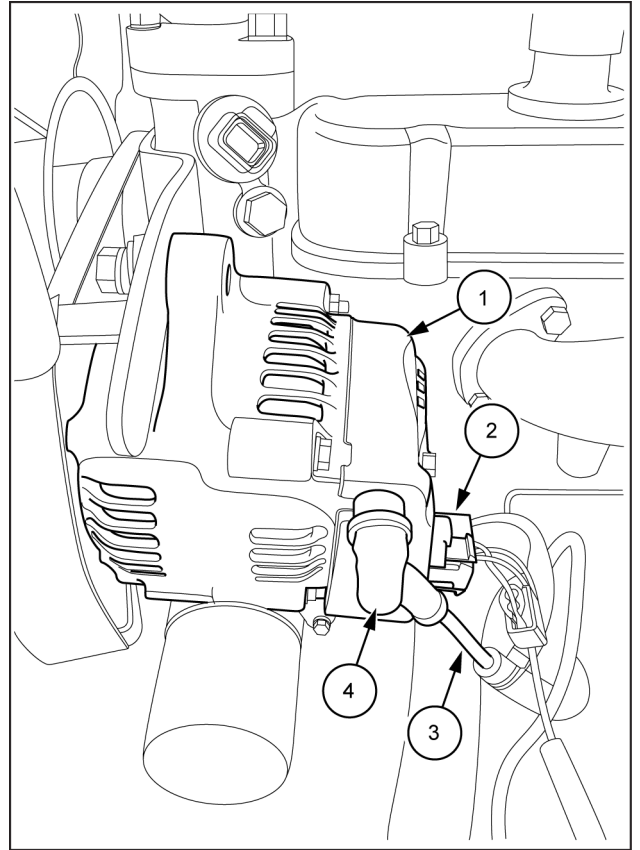
Remove the pump (for details, see **Pump - Remove (35.106)**).

1. Loosen the clamp and remove the hose (2) from the windshield washer reservoir (1).
2. Remove the windshield washer reservoir (1) from the bracket.
3. Use a wrench [17 mm] to remove the two bolts (3), and then remove the bracket with the fuses box and the battery disconnect switch (6).
4. Use a wrench [17 mm] to remove the two bolts (4), and then remove the bracket with the relays (5).



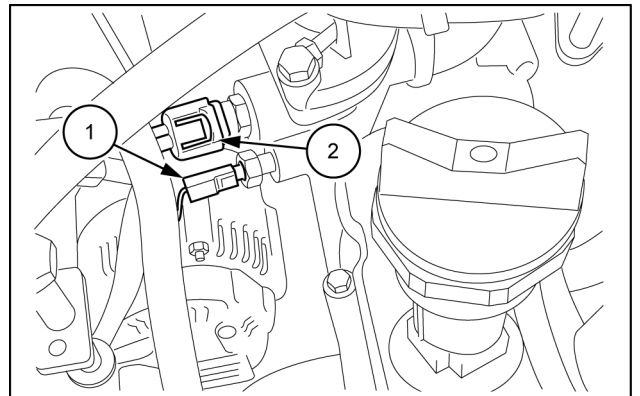
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5. Move the cap (4).
6. Remove the nut and disconnect the wire (3).
7. Disconnect the electrical connector (2) from the alternator (1).



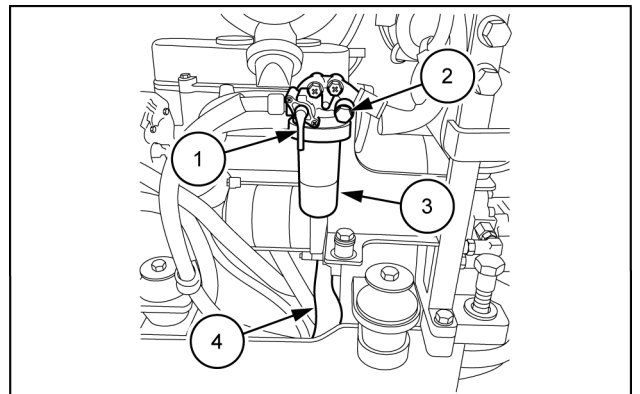
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8. Disconnect the electrical connector **CD-9 (1)** of the overheat switch.
9. Disconnect the electrical connector **CD-8 (2)** of the cooling temperature sensor.



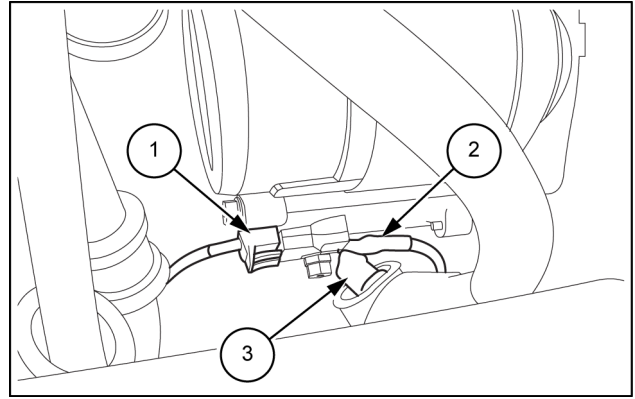
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10. Close the fuel pre-filter cock (1).
11. Use a wrench [**13 mm**] to remove the bolt (2), and then remove the fuel pre-filter (3).
12. Use a wrench [**17 mm**] to remove the bolt and then disconnect the earth strap (4) from the engine.



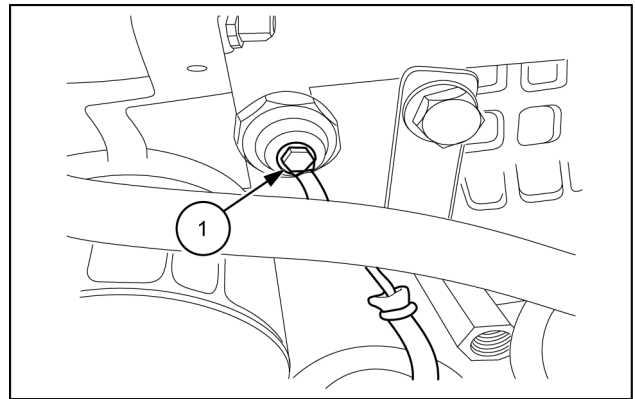
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13. Move the cap.
14. Remove the nut and disconnect the wires **(2)** and **(3)**.
15. Disconnect the electrical connector **(1)** from the engine starter.



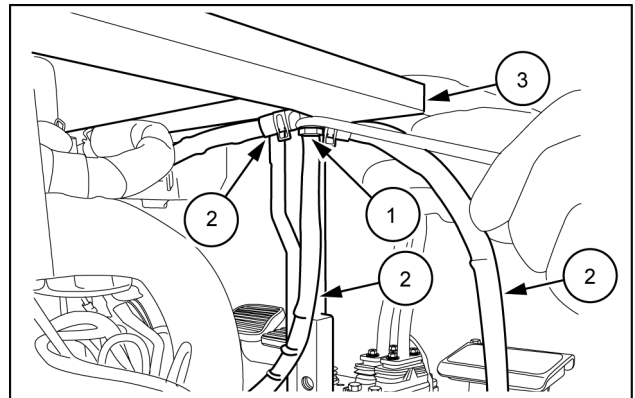
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16. Remove the nut and disconnect the electrical connector **CD-18** of the engine oil pressure switch.



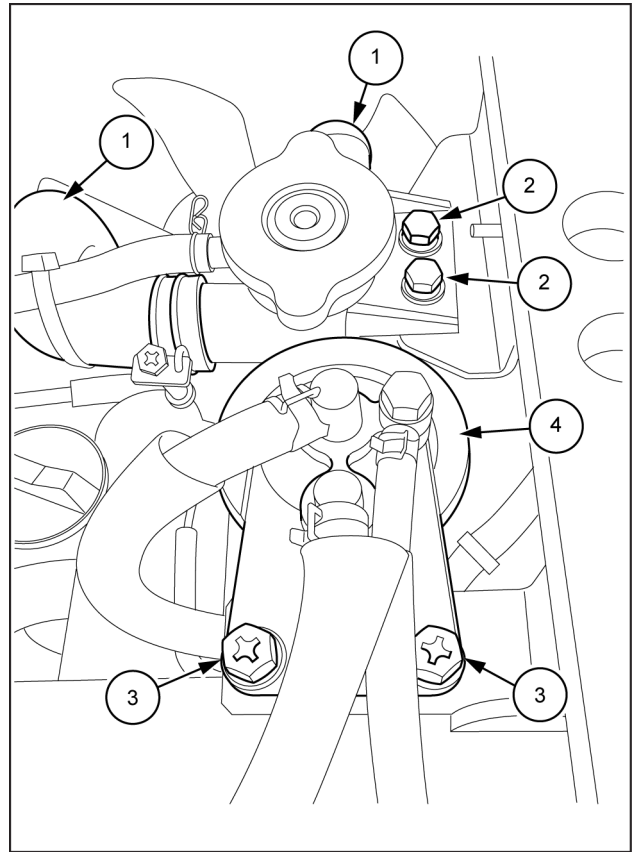
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17. Use a wrench [**13 mm**] to remove the bolt **(1)** and then remove the fuel hoses **(2)** from the support **(3)**.



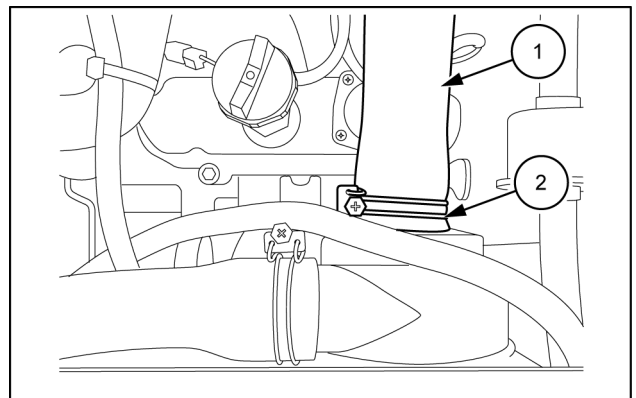
SMIL17MEX0266AB 7

18. Use a wrench [**13 mm**] to remove the two bolts (2) and then remove the filling hoses (1) of the radiator from the support.
19. Use a wrench [**13 mm**] to remove the two bolts (3) and then remove the fuel filter (4) from the support.



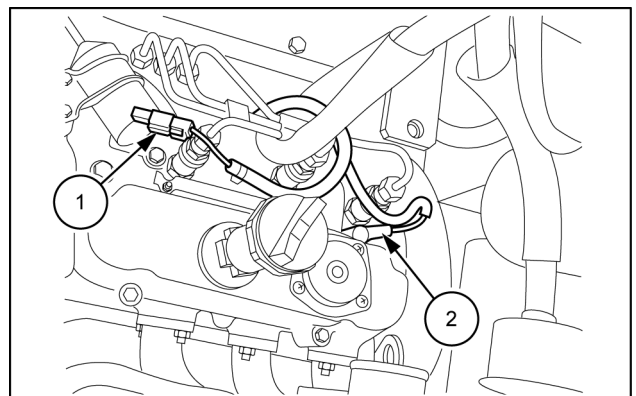
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20. Loosen the clamp (2) and remove the air hose (1) from the air cleaner.



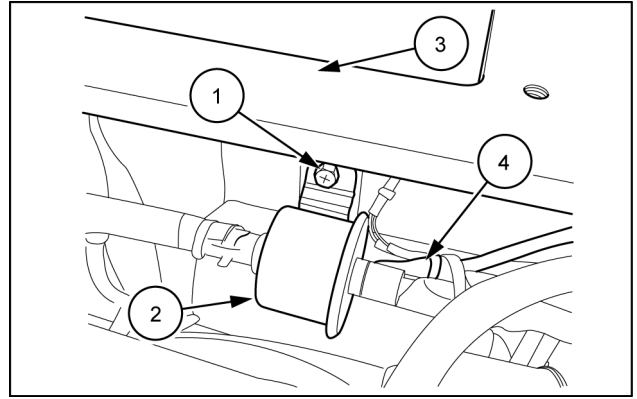
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21. Disconnect the electrical connector **CN-79** (1) of the fuel solenoid.
22. Move the cap.
23. Remove the nut and disconnect the wire **CN-80** (2) of the air-heater.



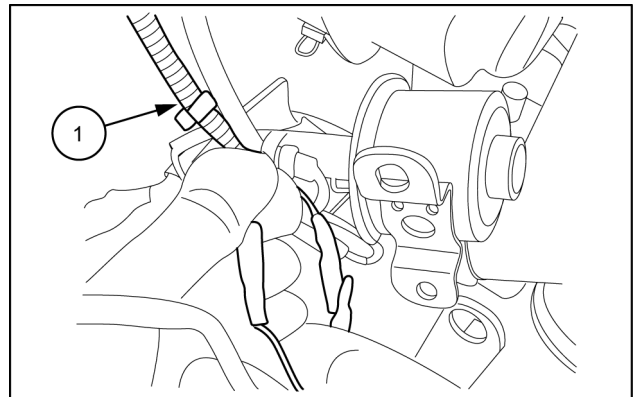
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24. Disconnect the electrical connector **CN-145 (4)** of the fuel feed pump **(2)**.
25. Use a wrench [**10 mm**] to remove the bolt **(1)** and then remove the fuel feed pump **(2)** from the support **(3)**.



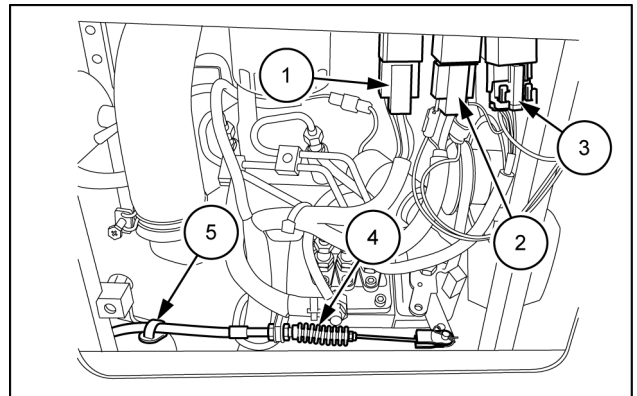
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26. Disconnect the electrical connector **CN-81 (1)** of the travel alarm buzzer.



SMIL17MEX0271AB 12

27. Use a wrench [**10 mm**] to remove the three bolts and then remove the power relays **CR-23 (1)**, **CR-35 (2)**, and **CR-2 (3)**.
28. Loosen the clamp **(5)** and remove the accelerator rope **(4)** from the chassis.



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Suggest:

If the above button click is invalid.

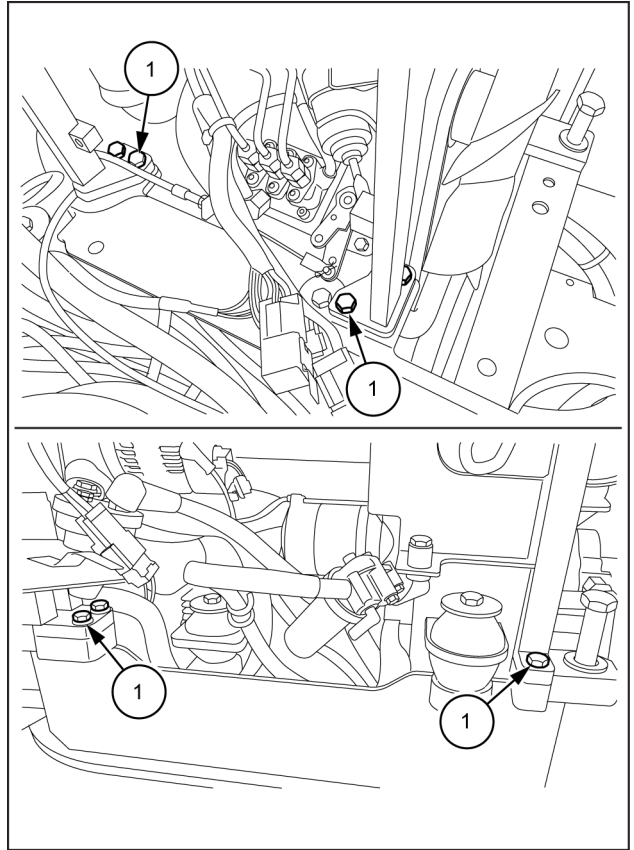
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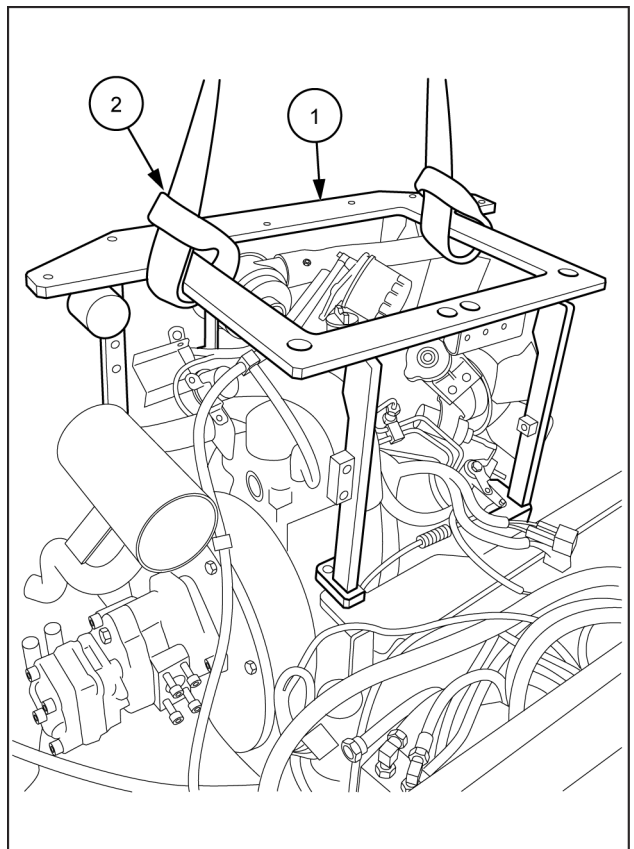
29. Use a wrench [17 mm] to remove the seven bolts (1).



SMIL17MEX0273BB 14

30. Use chains or nylon sling (2) and lift-crane to secure the support (1).

31. Remove the support (1).



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