CASE CONSTRUCTION

REPAIR MANUAL

ARTICULATED TRUCK

335B
340B
TIER 3

SIMPLEMUX

ASN HHD0335(40)BN7PG58065~

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TABLE OF CONTENTS

SECTIONS

GENERAL 1

ENGINES 2

ELECTRICAL 4

STEERING 5

POWER TRAIN 6

BRAKES 7

HYDRAULICS 8

MOUNTED EQUIPMENT 9

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CHAPTER 1
CONDITIONS OF USE AND SAFETY INSTRUCTIONS
TABLE OF CONTENTS

CONDITIONS OF USE . . . 1-3
INFORMATION ON THIS HANDBOOK . . . 1-3
- Definitions . . . 1-3
- Contents . . . 1-3
- Symbols . . . 1-3
- Purpose of this handbook . . . 1-4
- To whom this handbook is addressed . . . 1-4
- Safekeeping of this handbook . . . 1-4
- Updates to this handbook . . . 1-4
- Units of measure . . . 1-4

SCHEDULED USE . . . 1-5
VEHICLE DRIVERS . . . 1-5
WASTE DISPOSAL . . . 1-6
WARRANTY AND LIABILITY OF THE MANUFACTURER . . . 1-7
- Warranty conditions . . . 1-7
- Liability . . . 1-7

SERVICE . . . 1-7
- After sales service . . . 1-7
- Spare parts . . . 1-7

GENERAL OPERATION RULES . . . 1-8
- Pre-disassembly preparation . . . 1-8
- During disassembly . . . 1-8
- Disconnecting hydraulic lines . . . 1-9
- After disassembly . . . 1-9
- During assembly . . . 1-9
- Screw and nut tightening . . . 1-10
- Connecting hydraulic lines . . . 1-10
- Interchangeable parts . . . 1-11
- Welding on the chassis . . . 1-13

INTRODUCTION . . . 1-14
- Safety information and symbols . . . 1-14
- General instructions . . . 1-15

preventing fires . . . 1-16

ROLLOVER ACCIDENTS . . . 1-18
- Prevention . . . 1-18
- What to do if the vehicle rolls over . . . 1-18
- Structure of the cab . . . 1-19

instructions for use . . . 1-20
- Cab . . . 1-20
- Starting and stopping . . . 1-21
- Driving the vehicle . . . 1-22
- Working the vehicle . . . 1-23
- Towing the vehicle . . . 1-25
- Replacing the wheel . . . 1-25

MAINTENANCE . . . 1-26
- General . . . 1-26
- Electrical power disconnection . . . 1-27
- Disconnection of the emergency electric power supply . . . 1-28
- Emergency switch . . . 1-29

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CHAPTER 2
TECHNICAL DATA
TABLE OF CONTENTS

VEHICLE COMPOSITION . . . 2-3
DIMENSIONS (EMPTY VEHICLE) . . . 2-4
DIMENSIONS WITH BODY RAISED . . . 2-5
WEIGHTS . . . 2-6
CENTER OF GRAVITY (HORIZONTAL POSITION) . . . 2-7
PERFORMANCE . . . 2-8
PERFORMANCE ALIGNMENT CHART . . . 2-9
- Using the alignment chart . . . 2-9

MAIN TECHNICAL SPECIFICATIONS . . . 2-11
- Chassis number . . . 2-11
- CASE PIN plate . . . 2-12

POSITION OF IDENTIFICATION DATA ON MAIN GROUPS . . . 2-13
- Cab . . . 2-13
- Chassis . . . 2-13
- Engine . . . 2-13
- Automatic transmission . . . 2-13
- Drive axles . . . 2-14
- Dump cylinders . . . 2-14
- Steering cylinders . . . 2-14
- Front suspension cylinders . . . 2-14

MAIN TECHNICAL SPECIFICATIONS . . . 2-15
- Engine . . . 2-15
- Automatic transmission . . . 2-15
- Front drive axle . . . 2-16
- Intermediate and rear drive axles . . . 2-16
- Suspension . . . 2-16
- Brakes . . . 2-16
- Wheels and tyres . . . 2-16
- Hydraulic system . . . 2-17
- Electrical system . . . 2-17
- Chassis . . . 2-17
- Drive cab . . . 2-17
- Body . . . 2-17

LIST OF BULBS . . . 2-18
CAPACITIES . . . 2-19
TYRE PRESSURE TABLE . . . 2-20
ANTIFREEZE CONCENTRATION IN ENGINE COOLANT . . . 2-20
ANTIFREEZE CONCENTRATION IN WINDSHIELD WASHER FLUID . . . 2-20
BATTERY ELECTROLYTE DENSITY TABLE . . . 2-20
TIGHTENING TORQUE . . . 2-21
PLATES APPLIED TO THE VEHICLE . . . 2-22
STANDARD TIGHTENING TORQUES . . . 2-31
- Screws and nuts with metric thread . . . 2-31

MEASURES (INTERNATIONAL SYSTEM) . . . 2-32

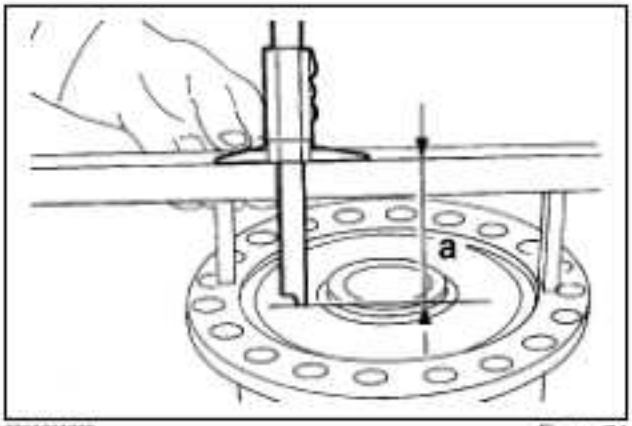
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Warning lamp	Display	SPN	FMI	Meaning of the fault code possible reason for fault detection	Reaction of the TCU	Possible steps to repair
TCU ! STOP	Code TCU 86	5520	5	D.C. AT CLUTCH KV the measured resistance value of the valve is out of limit. • cable / connector is defective and has no contact to TCU • regulator has an internal defect	TCU SHIFTS TO NEUTRAL OP-MODE: LIMP HOME IF FAILURE AT ANOTHER CLUTCH IS PENDING TCU SHIFTS TO NEUTRAL OP-MODE: TCU SHUT-DOWN	• check the cable from TCU to the gearbox • check the connectors from gearbox to TCU • check the regulator resistance 1) • check internal wire harness of the gearbox
TCU ! STOP	Code TCU 87	5530	3	S.C. TO BATTERY VOLTAGE AT CLUTCH KR the measured resistance value of the valve is out of limit, the voltage at KR valve is too high. • cable / connector is defective and has contact to battery voltage • regulator has an internal defect	TCU SHIFTS TO NEUTRAL OP-MODE: LIMP HOME IF FAILURE AT ANOTHER CLUTCH IS PENDING TCU SHIFTS TO NEUTRAL OP-MODE: TCU SHUT-DOWN	• check the cable from TCU to the gearbox • check the connectors from gearbox to TCU • check the regulator resistance 1) • check internal wire harness of the gearbox
TCU ! STOP	Code TCU 88	5530	4	S.C. TO GROUND AT CLUTCH KR the measured resistance value of the valve is out of limit, the voltage at KR valve is too low. • cable / connector is defective and has contact to vehicle ground • cable / connector is defective and has contact to another regulator output of the TCU • regulator has an internal defect	TCU SHIFTS TO NEUTRAL OP-MODE: LIMP HOME IF FAILURE AT ANOTHER CLUTCH IS PENDING TCU SHIFTS TO NEUTRAL OP-MODE: TCU SHUT-DOWN	• check the cable from TCU to the gearbox • check the connectors from gearbox to TCU • check the regulator resistance 1) • check internal wire harness of the gearbox
TCU ! STOP	Code TCU 89	5530	5	D.C. AT CLUTCH KR the measured resistance value of the valve is out of limit. • cable / connector is defective and has no contact to TCU • regulator has an internal defect	TCU SHIFTS TO NEUTRAL OP-MODE: LIMP HOME IF FAILURE AT ANOTHER CLUTCH IS PENDING TCU SHIFTS TO NEUTRAL OP-MODE: TCU SHUT-DOWN	• check the cable from TCU to the gearbox • check the connectors from gearbox to TCU • check the regulator resistance 1) • check internal wire harness of the gearbox
TCU !	Code TCU 91	5560	4	S.C. TO GROUND AT RELAY REVERSE WARNING ALARM TCU detected a wrong voltage at the output pin, that looks like a s.c. to vehicle ground • cable is defective and is contacted to vehicle ground • backup alarm device has an internal defect • connector pin is contacted to vehicle ground	BACKUP ALARM WILL BE ON UNTIL TCU POWER DOWN EVEN IF FAULT VANISHES (LOOSE CONNECTION) OP-MODE: NORMAL	• check the cable from TCU to the backup alarm device • check the connectors from backup alarm device to TCU • check the resistance 1) of backup alarm device
TCU !	Code TCU 92	5560	3	S.C. TO BATTERY VOLTAGE AT RELAY REVERSE WARNING ALARM TCU detected a wrong voltage at the output pin, that looks like a s.c. to battery voltage • cable is defective and is contacted to battery voltage • backup alarm device has an internal defect • connector pin is contacted to battery voltage	NO REACTION OP-MODE: NORMAL	• check the cable from TCU to the backup alarm device • check the connectors from backup alarm device to TCU • check the resistance 1) of backup alarm device
TCU !	Code TCU 93	5560	5	D.C. AT RELAY REVERSE WARNING ALARM TCU detected a wrong voltage at the output pin, that looks like a o.c. for this output pin • cable is defective and has no connection to TCU • backup alarm device has an internal defect • connector has no connection to TCU	NO REACTION OP-MODE: NORMAL	• check the cable from TCU to the backup alarm device • check the connectors from backup alarm device to TCU • check the resistance 1) of backup alarm device ?

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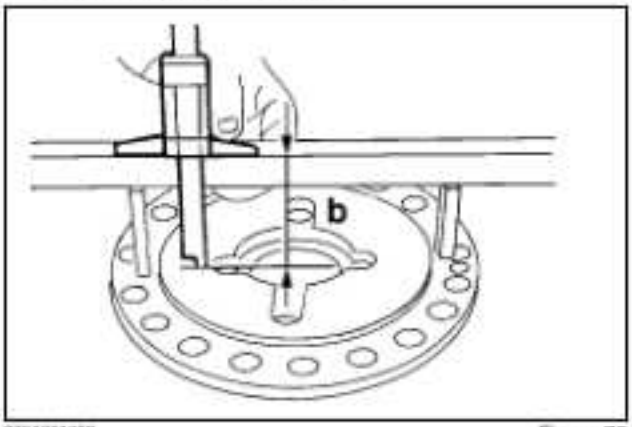
Determination of the disc pack axial clearance

Do as follows:



276A061028 Figure 74

- Determine the dimension **a**



276A061029 Figure 75

- Determine the dimension **b**
- Check that the disc pack axial clearance is within the prescribed values as follows:

0.20 mm (0.0079 in) **< a – b < 0.80 mm**(0.3150 in))

where:

a = distance between box attachment plane and the last driven disc

b = distance between the working surface and the cover attachment plane

Example:

dimension a: 104.30 mm (4.1063 in)

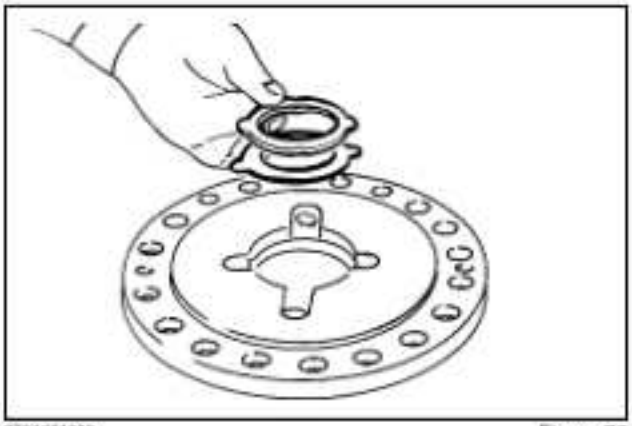
dimension b: 103.95 mm (4.0925 in

Difference a–b: 0.35 mm (0.0138 in) = axial clearance

- The clearance can be corrected by installing discs of various thickness.

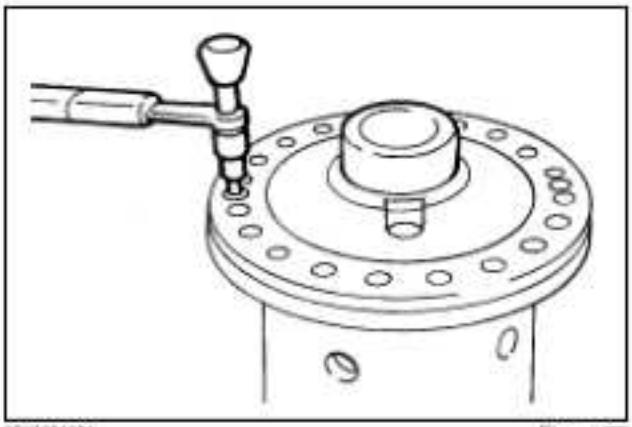
ATTENTION: *The total height of the crown wheel-side disc pack must be identical to that on the opposite side.*

ATTENTION: *It is recommended to approach the lower value as much as possible.*



276A061030 Figure 76

- Position the steel shoulder ring and then the brass shoulder ring on the cover, making them adhere with lubricating grease for bearings.

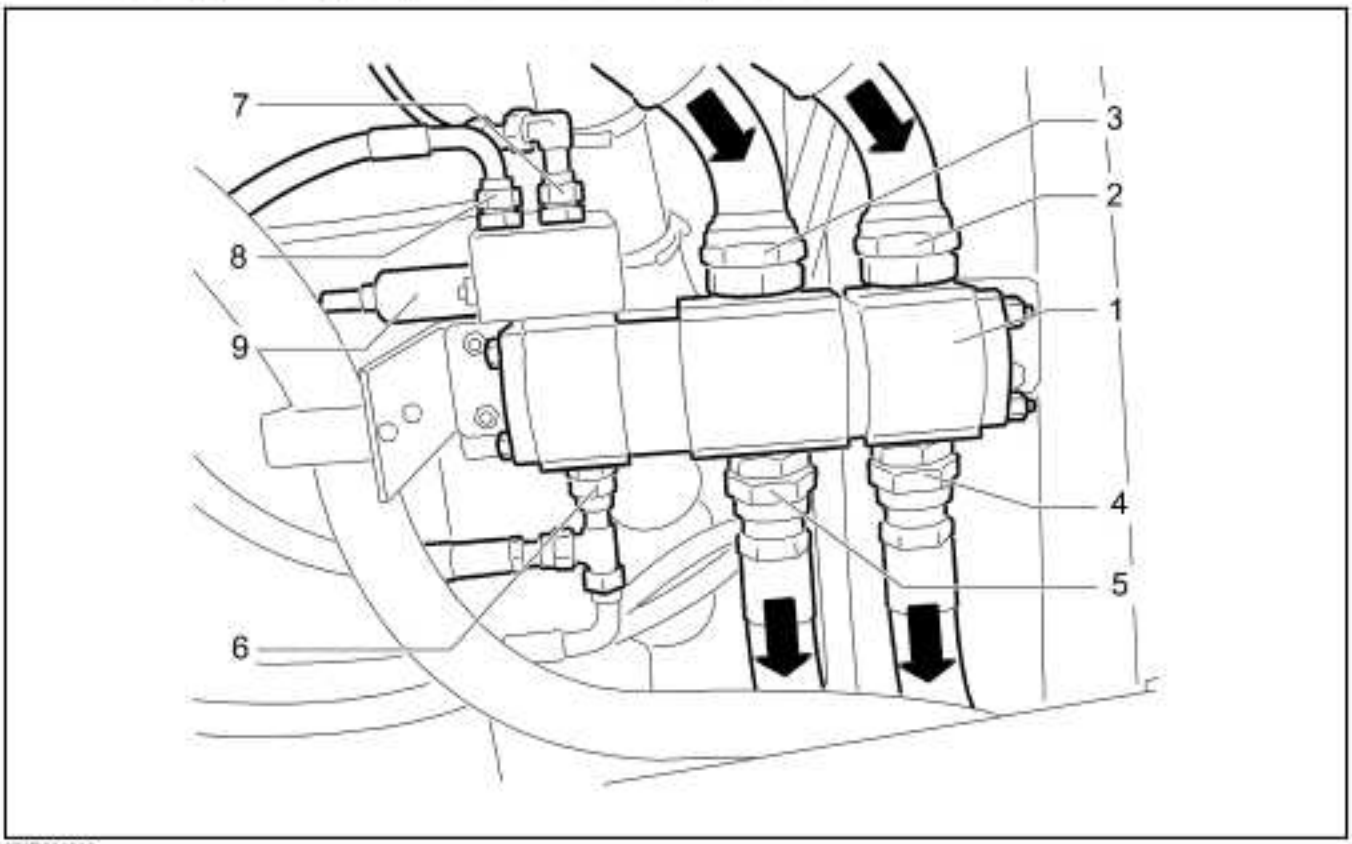


276A061031 Figure 77

Position the cover on the differential gearbox, mount the hexagonal socket head cap screws and tighten them to the prescribed torque.

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Brake cooling circuit pump–motor removal–replacement



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SERVICE INSTRUCTIONS

General instructions

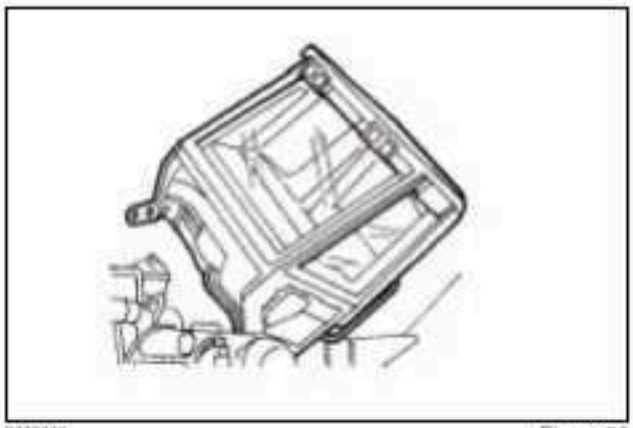
WARNING: *Before performing any intervention, ensure that all the precautions have been taken and all aspects clarified regarding the safety of personnel involved in the intervention.*
Read the relative instructions provided in SECTION 1 of the Workshop Manual.
In case of doubt, consult a more experienced person.
Furthermore, respect all the general recommendations for a correct execution of the maintenance interventions.

Do as follows:

- Bring the vehicle onto an appropriate solid and flat surface, shut off the engine, remove the key from the ignition switch, engage the parking brake and affix the indication signs.
- Block the articulation by means of the steering lock bar, as indicated in SECTION 1 of the Workshop Manual.

Pressures check pipes installation.

Do as follows:



2500310 Figure 36

- Operate the cab tipping as indicated in SECTION - CAB of the Workshop Manual.



SIADT02406.02 Figure 37

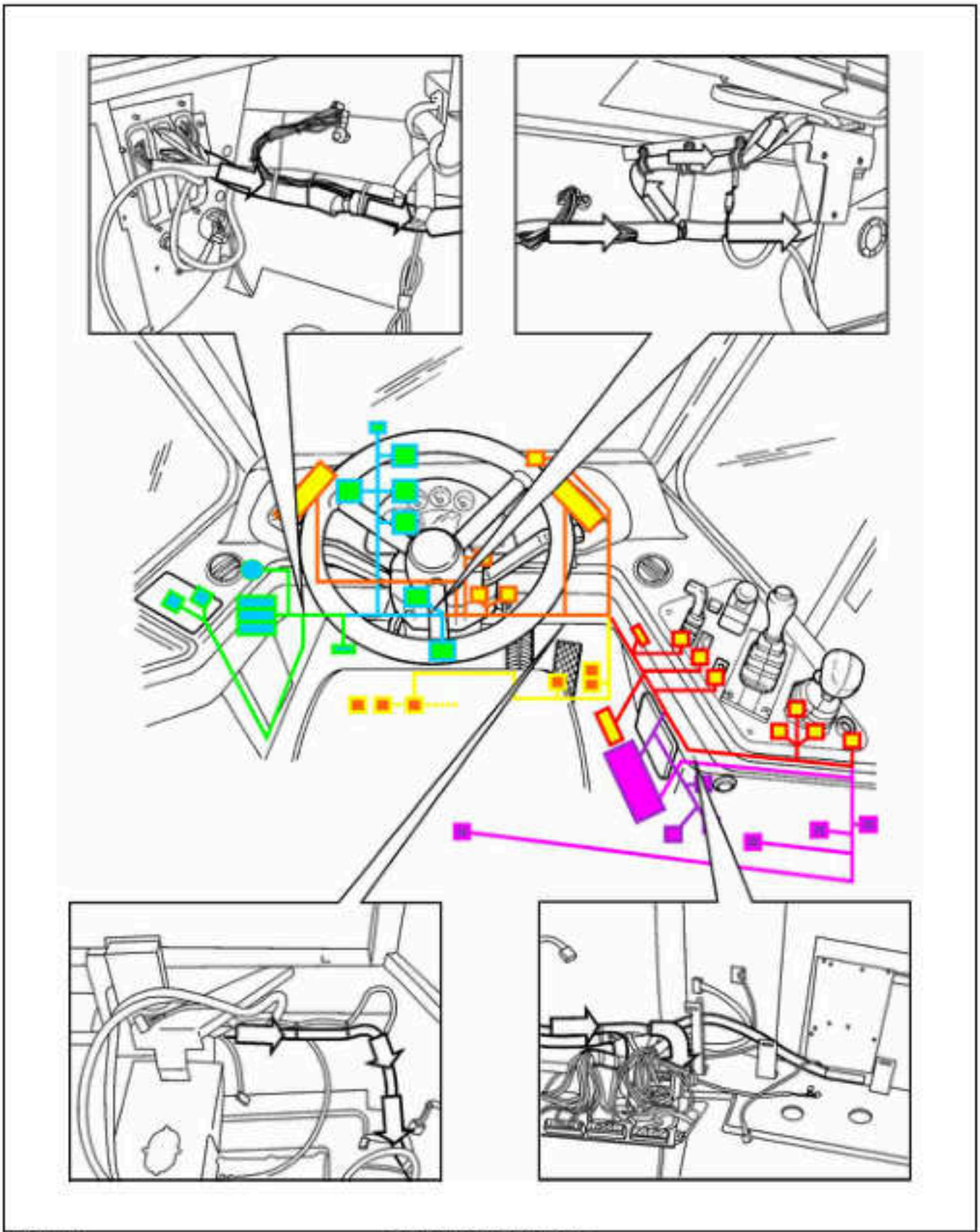
- Using a suitable fitting M10x1 and a pipe connect a pressure gauge to each pressure check port.

ATTENTION: *Use of a 20 bar scale pressure gauge.*

- Restore the functionality of the vehicle.

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Cab cable



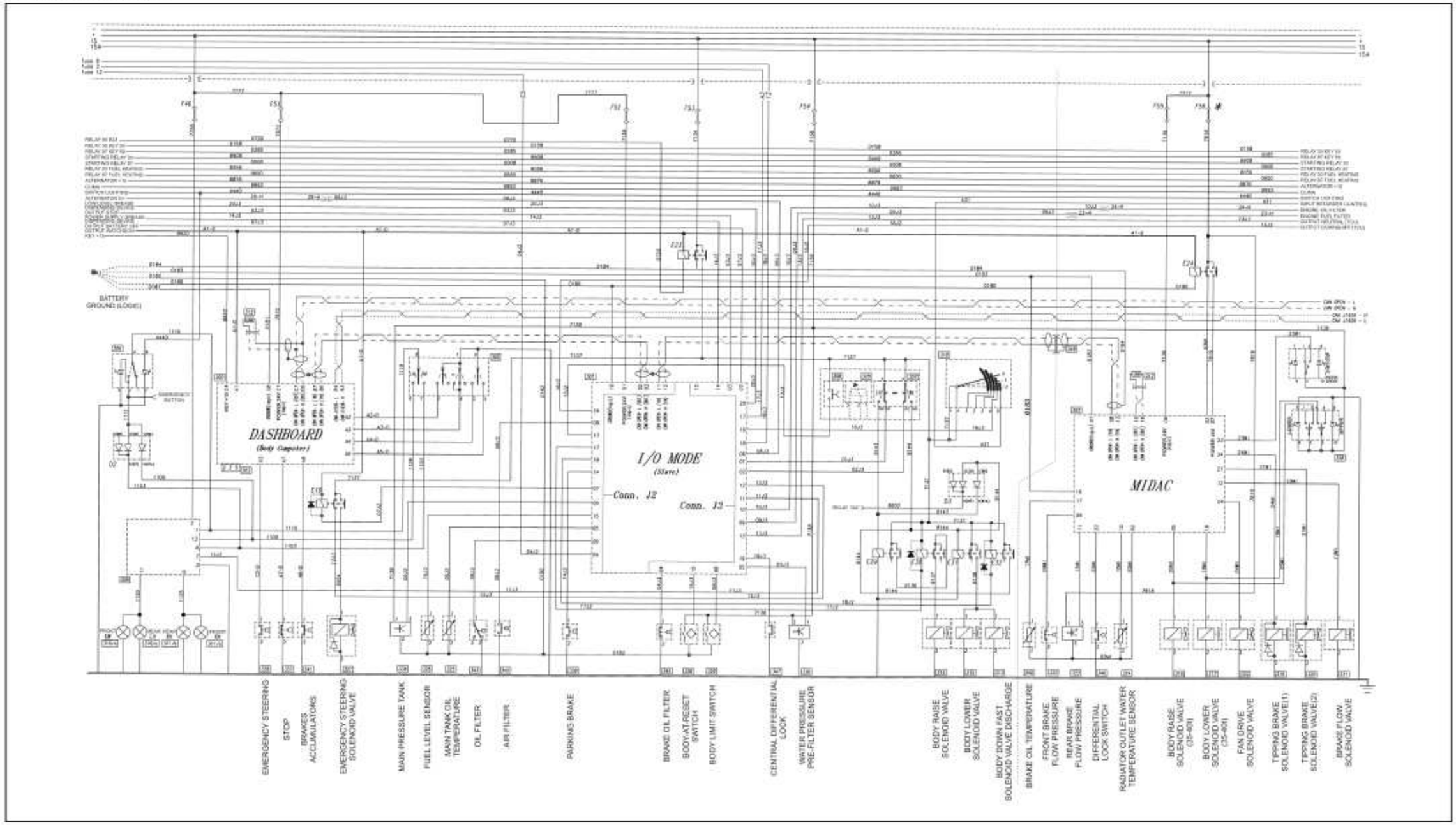
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TOPOGRAPHIC DIAGRAM

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SECTION 4 - ELECTRICAL
CHAPTER 1 - ELECTRICAL SYSTEM

Layout electrical system (3/5)



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