SEBM018506

SHOP MANUAL

KOMATSU®

PC128UU-2

MACHINE MODEL	SERIAL NUMBER
PC128UU-2	**5001 and up**

- This shop manual may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require.
  Materials and specifications are subject to change without notice.

- PC128UU-2 mounts the S4D102E-1 engine.
  For details of the engine, see the 102 Series Engine Shop Manual.

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Machine model					PC128UU-2
Serial No.					5001 and up
Hydraulic system	Work equipment cylinder	Boom cylinder	Type		Reciprocating piston
			Cylinder (inside diameter)	mm	105
			Diameter of pistonrod	mm	70
			Stroke	mm	1,055
			Max. distance between pins	mm	2,555
			Min. distance between pins	mm	1,500
		Arm cylinder	Type		Reciprocating piston
			Cylinder (inside diameter)	mm	115
			Diameter of pistonrod	mm	75
			Stroke	mm	272.5
			Max. distance between pins	mm	1,230.5
			Min. distance between pins	mm	958
		Bucket cylinder	Type		Reciprocating piston
			Cylinder (inside diameter)	mm	90
			Diameter of pistonrod	mm	60
			Stroke	mm	885
			Max. distance between pins	mm	2,263
			Min. distance between pins	mm	1,378
		Offset cylinder	Type		Reciprocating piston
			Cylinder (inside diameter)	mm	130
			Diameter of pistonrod	mm	70
			Stroke	mm	346
			Max. distance between pins	mm	1,818
			Min. distance between pins	mm	1,472
		Blade cylinder	Type		Reciprocating piston
			Cylinder (inside diameter)	mm	115
			Diameter of pistonrod	mm	75
			Stroke	mm	181
			Max. distance between pins	mm	870
			Min. distance between pins	mm	689

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WEIGHT TABLE

⚠ This mass list is for reference in handling or transporting these components.

Unit: kg

Machine model	PC128UU-2
Serial No.	5001 and up
Engine assembly (without water and oil)	510
• Engine (without water and oil)	385
• Engine mount	5.8
• PTO	4.1
• Hydraulic pump	80
Radiator/oil cooler assembly	54
Revolving frame	1,500
Operator cab	220
Operator seat	12.6
Fuel tank (without fuel)	98
Hydraulic tank (without hydraulic oil)	92
Control valve	106
Self pressure reducing valve	4.8
Counterweight	1,880
Swing motor (with brake valve)	26
Swing circle	155
Swing machinery	72.2
Center swivel joint	43.6
Track frame assembly	2,590
• Track frame	1,438
• Idler assembly	81 x 2
• Recoil spring assembly	72.9 x 2
• Carrier roller	11 x 2
• Track roller	21 x 14
• Travel motor (with speed reducer)	144 x 2
• Sprocket	33.7 x 2
Track shoe assembly	
• Road liner (500mm)	770 x 2
• Triple grouser shoe (500mm)	740 x 2
• Triple grouser shoe (600mm)	830 x 2
• Triple grouser shoe (700)	925 x 2
• Swamp shoe (750mm)	875 x 2
• Flat shoe (480mm)	760 x 2

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Unit: kg

Machine model	PC128UU-2
Serial No.	5001 and up
Boom assembly	
• 1st boom	536
• 2nd boom	337
• 3rd bracket	217
• Sub-link	51
Arm assembly	300
Bucket link assembly	85.6
Bucket assembly (with 955mm-wide side cutter)	369
Blade assembly	647
Boom cylinder assembly	106.3 x 2
Arm cylinder assembly	136.9
Bucket cylinder assembly	75.8
Offset cylinder assembly	86.1
Blade cylinder assembly	67.2 x 2

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POINTS TO REMEMBER WHEN TROUBLESHOOTING

⚠ Stop the machine in a level place, and check that the safety pin, blocks, and parking brake are securely fitted.

⚠ When carrying out the operation with two or more workers, keep strictly to the agreed signals, and do not allow any unauthorized person to come near.

⚠ If the radiator cap is removed when the engine is hot, hot water may spurt out and cause burns, so wait for the engine to cool down before starting troubleshooting.

⚠ Be extremely careful not to touch any hot parts or to get caught in any rotating parts.

⚠ When disconnecting wiring, always disconnect the negative (-) terminal of the battery first.

⚠ When removing the plug or cap from a location which is under pressure from oil, water, or air, always release the internal pressure first. When installing measuring equipment, be sure to connect it properly.

The aim of troubleshooting is to pinpoint the basic cause of the failure, to carry out repairs swiftly, and to prevent reoccurrence of the failure.
When carrying out troubleshooting, and important point is of course to understand the structure and function. However, a short cut to effective troubleshooting is to ask the operator various questions to form some idea of possible causes of the failure that would produce the reported symptoms.

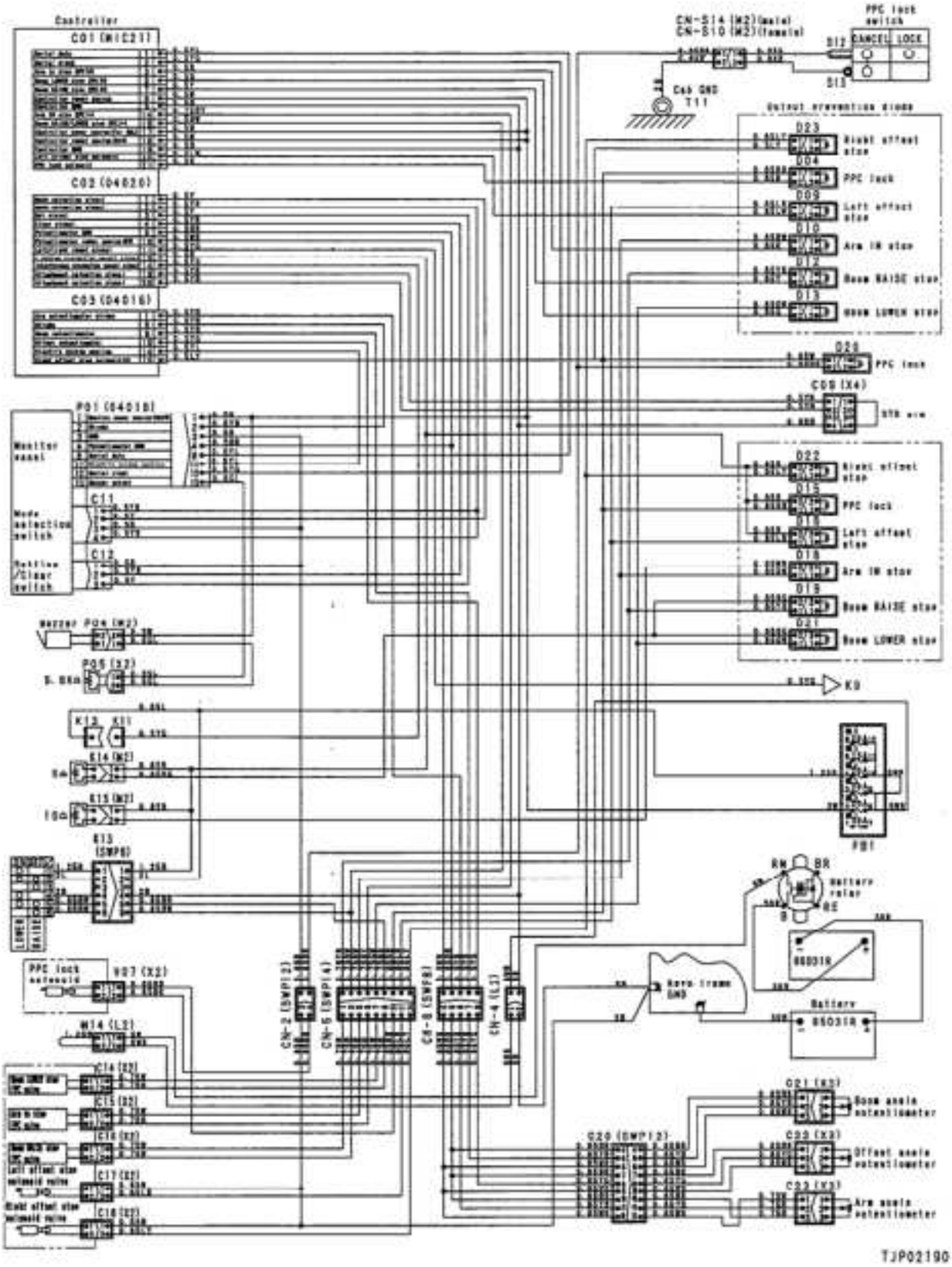
1. When carrying out troubleshooting, do not hurry to disassemble the components.
   If components are disassembled immediately any failure occurs:
   - Parts that have no connection with the failure or other unnecessary parts will be disassembled.
   - It will become impossible to find the cause of the failure.

   It will also cause a waste of manhours, parts, or oil or grease, and at the same time, will also lose the confidence of the user or operator.
   For this reason, when carrying out troubleshooting, it is necessary to carry out through prior investigation and to carry out troubleshooting in accordance with the fixed procedure.
2. Points to ask user or operator
   1) Have any other problems occured apart from the problem that had been reported?
   2) Was there anything strange about the machine before tha failure occurred?
   3) Did the failure occur suddenly, or were there problems with the machine condition before this?
   4) Under what conditions did the failure occur?
   5) Had any repairs been carried out before the failure?
      When were these repairs carried out?
   6) Has the same kind of failure occurred before?
3. Check before troubleshooting
   1) Check the oil level.
   2) Check for any external leakage of oil from the piping or hydraulic equipment.
   3) Check the travel of the control levers.
   4) Check the stroke of the control valve spool.
   5) Other maintenance items can be checked externally, so check any item that is considered to be necessary.
4. Confirming failure
   Confirm the extent of the failure yourself, and judge whether to handle it as a real failure or as a problem with the method of operation, etc.
   ★ When operating the machine to reenact the troubleshooting symptoms, do not carry out any investigation or measurement that may make the problem worse.
5. Troubleshooting
   Use the results of the investigation and inspection in Items 2 - 4 to narrow down the causes of failure. then use the troubleshooting flowchart to locate the position of the failure exactly.
   ★ The basic procedure for troubleshooting is as follows.
      1) Start from the simple points.
      2) Start from the most likely points.
      3) Investigate other related parts or information.
6. Measures to remove root cause of failure
   Even if the dailure is repaired, if the root cause of the failure is not repaired, the same failure will occur again.
   To prevent this, always investigate why the problem occureed. Then, remove the root cause.

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ELECTRICAL CIRCUIT DIAGRAM FOR CONTROLLER SYSTEM

1. 4 system



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REMOVAL OF COUNTERWEIGHT ASSEMBLY

⚠ Completely ground the work equipment.

⚠ Disconnect the negative (–) terminal of the battery.

1. Remove engine upper cover (1).
2. Disconnect flywheel case oil filler hose (2).
3. Remove fuel gauge connector (3) from the clamp.
   ★ This is intended to prevent it from coming in contact with the frame when the counterweight is lifted.
4. Remove three mounting bolts (4). [※ 1]
   ★ Bolt : Width across flats = 65mm
   ★ Lift the counterweight assembly beforehand.
5. Slowly lift counterweight assembly (5) to remove it.

   Counterweight assembly : **1,880 kg**





INSTALLATION OF COUNTERWEIGHT ASSEMBLY

- Installation is performed in the opposite way to removal.

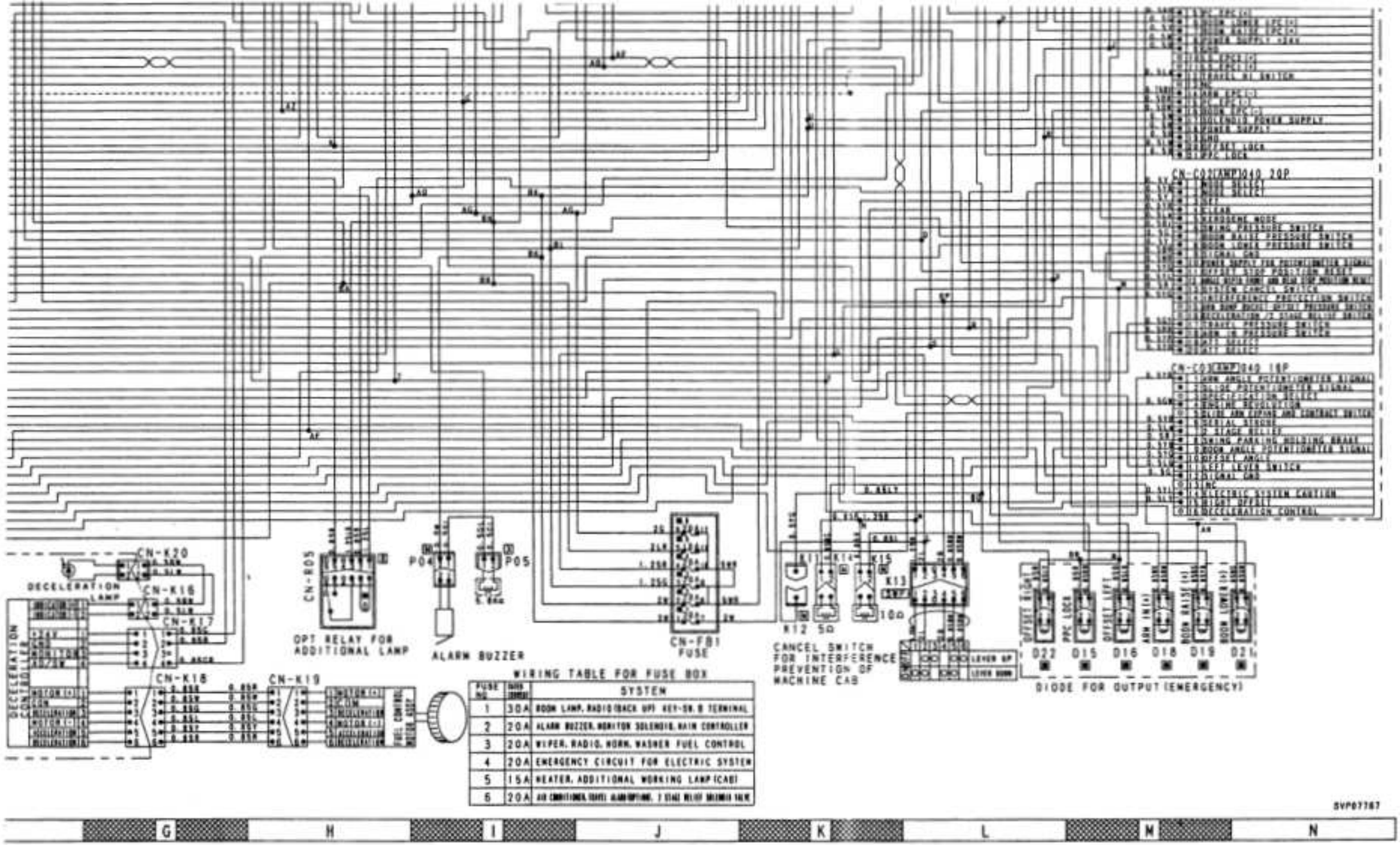
[※ 1]

Mounting bolt :
385.4 – 4,707.4 Nm (393.0 – 480.0 kgm)





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