

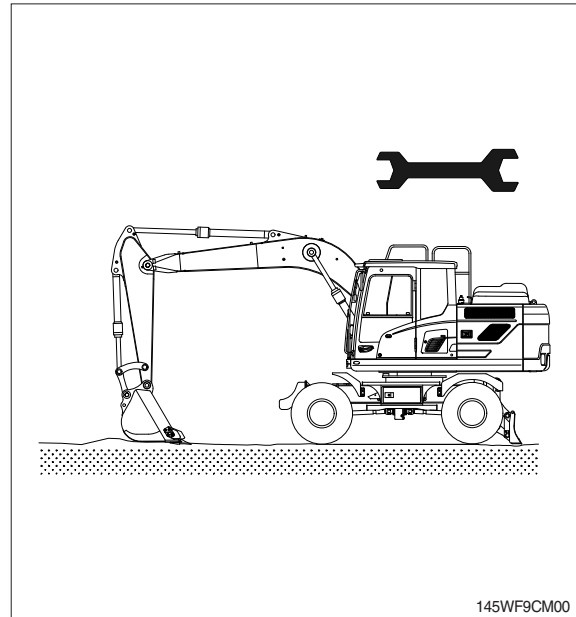
SECTION 9 COMPONENT MOUNTING TORQUE

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SECTION 9 COMPONENT MOUNTING TORQUE

GROUP 1 INTRODUCTION GUIDE

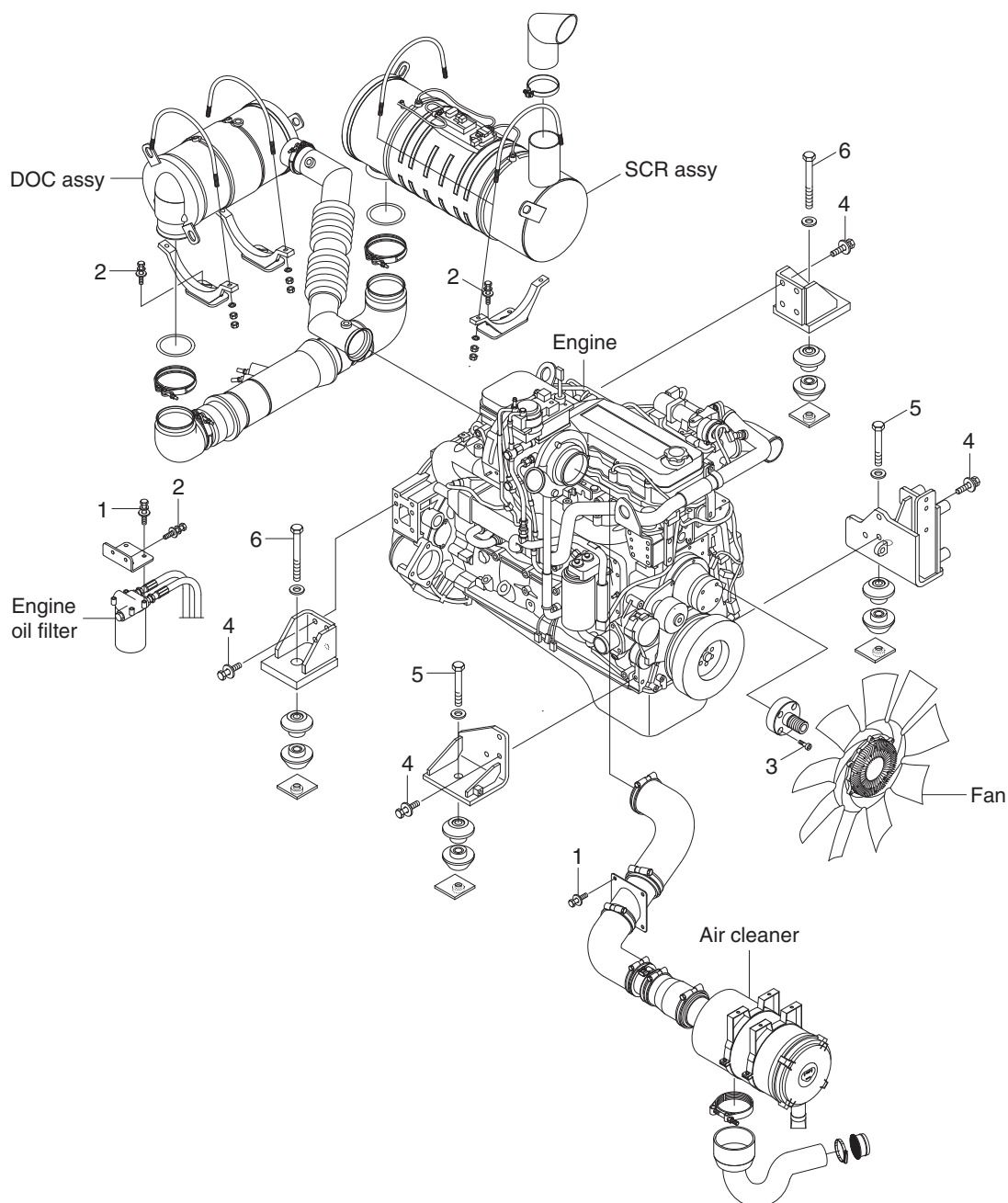
1. This section shows bolt specifications and standard torque values needed when mounting components to the machine.
 2. Use genuine HD Hyundai Construction Equipment spare parts.
We expressly point out that HD Hyundai Construction Equipment will not accept any responsibility for defects resulted from non-genuine parts.
In such cases HD Hyundai Construction Equipment cannot assume liability for any damage.
- ※ Only metric fasteners can be used and incorrect fasteners may result in machine damage or malfunction.
 - ※ Before installation, clean all the components with a non-corrosive cleaner. Bolts and threads must not be worn or damaged.



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GROUP 2 ENGINE SYSTEM

1. ENGINE AND ACCESSORIES MOUNTING



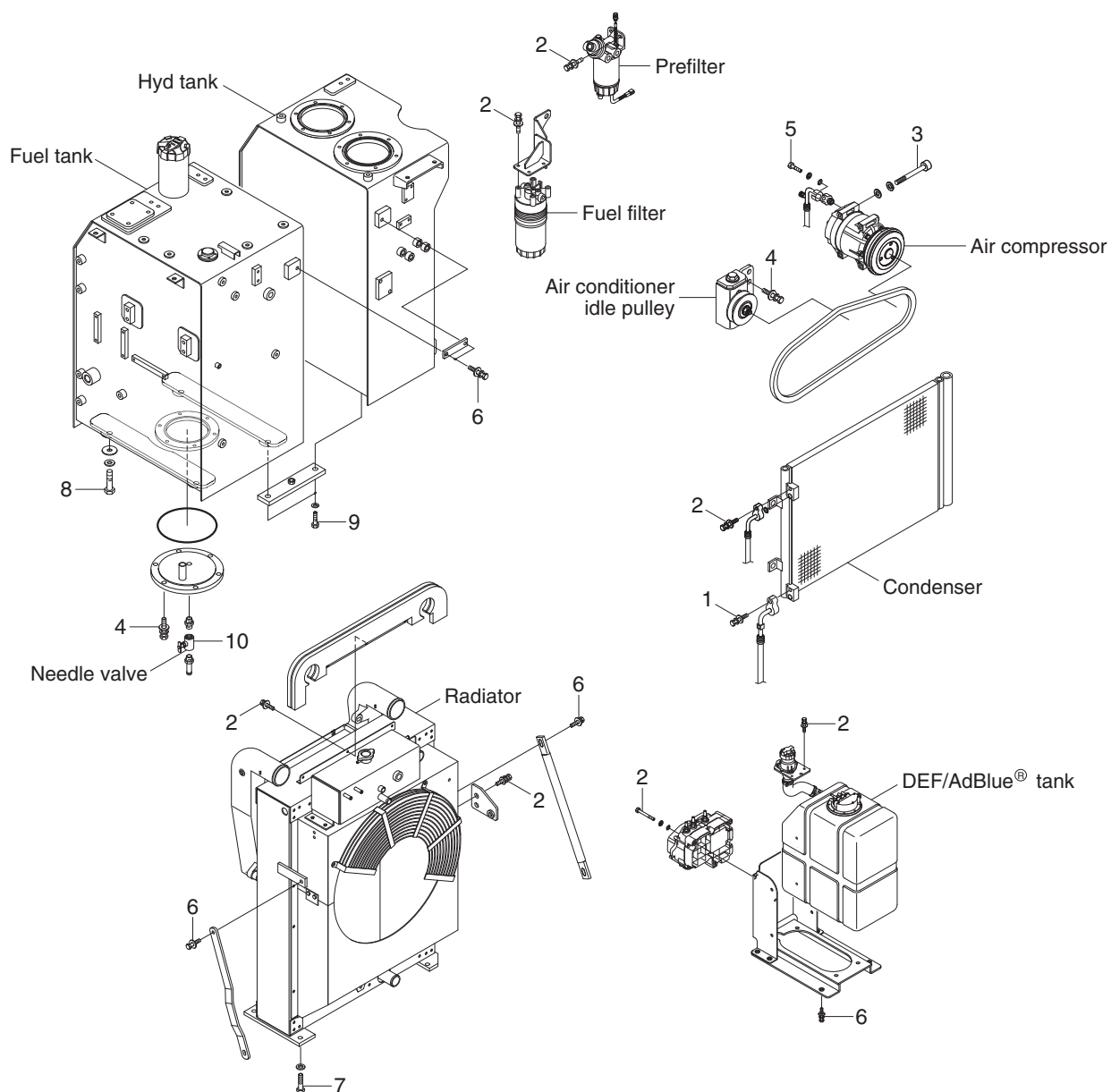
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• Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 8 × 1.25	2.5 ± 0.5	18.1 ± 3.6
2	M10 × 1.5	6.9 ± 1.4	49.9 ± 10.1
3	M10 × 1.5	8.27 ± 1.7	59.8 ± 12.3

Item	Size	kgf · m	lbf · ft
4	M12 × 1.75	11.5 ± 1.0	83.2 ± 7.2
5	M20 × 2.5	52.1 ± 5.0	370 ± 36.2
6	M24 × 3.0	90 ± 9.0	651 ± 65.1

2. COOLING SYSTEM AND FUEL TANK MOUNTING



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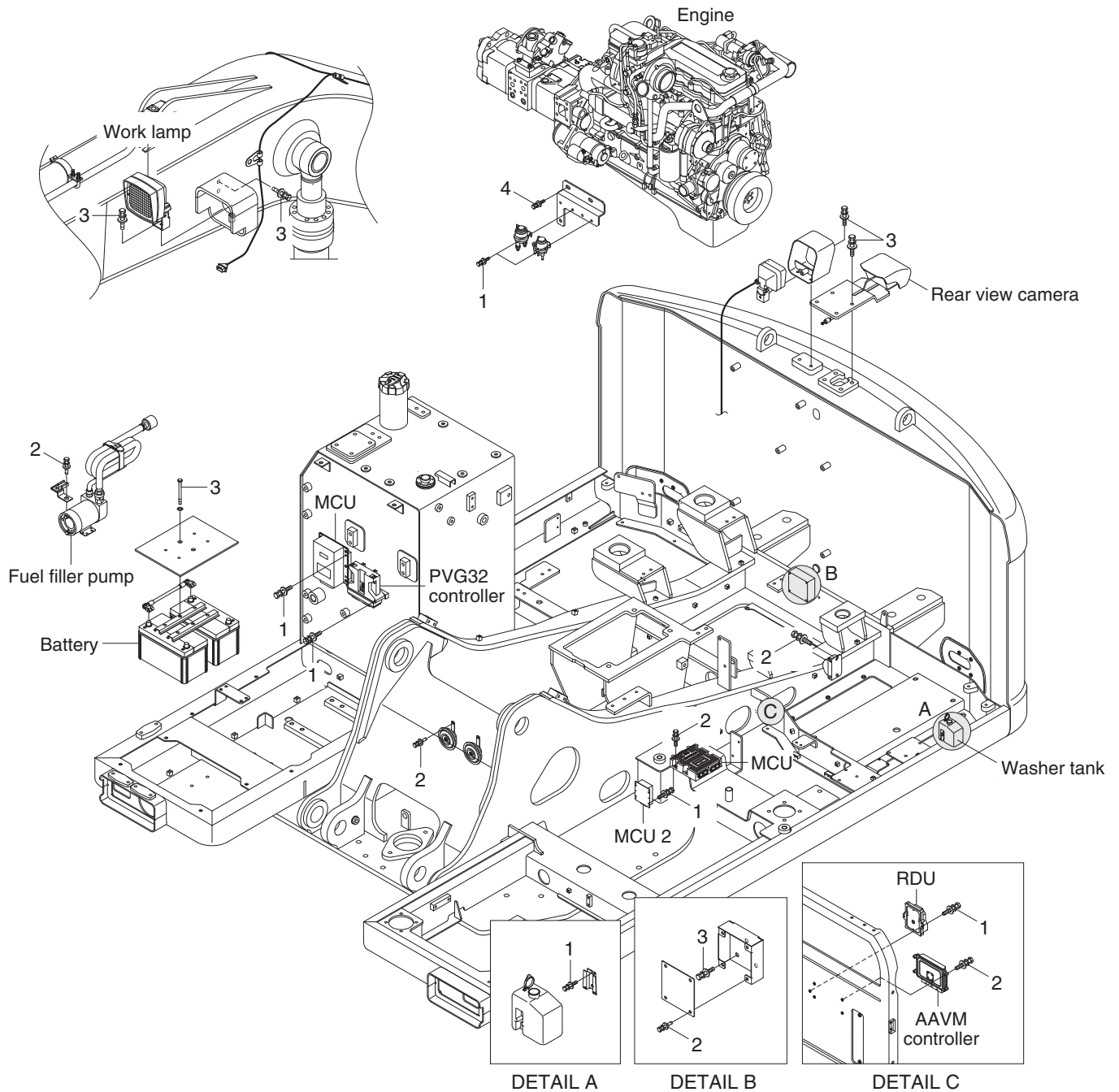
• Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 6×1.0	1.05±0.2	7.6±1.45
2	M 8×1.25	2.5±0.5	18.1±3.6
3	M 8×1.25	4.05±0.8	29.3±5.8
4	M10×1.5	6.9±1.4	49.9±10.1
5	M10×1.25	7.4±1.5	53.5±10.8

Item	Size	kgf · m	lbf · ft
6	M12×1.75	12.8±3.0	92.6±21.7
7	M16×2.0	29.7±4.5	215±32.5
8	M20×2.5	57.9±5.8	419±42.0
9	M20×2.5	57.9±8.7	419±62.9
10	-	2.3±0.6	16.6±4.3

GROUP 3 ELECTRIC SYSTEM

1. ELECTRIC COMPONENTS MOUNTING 1



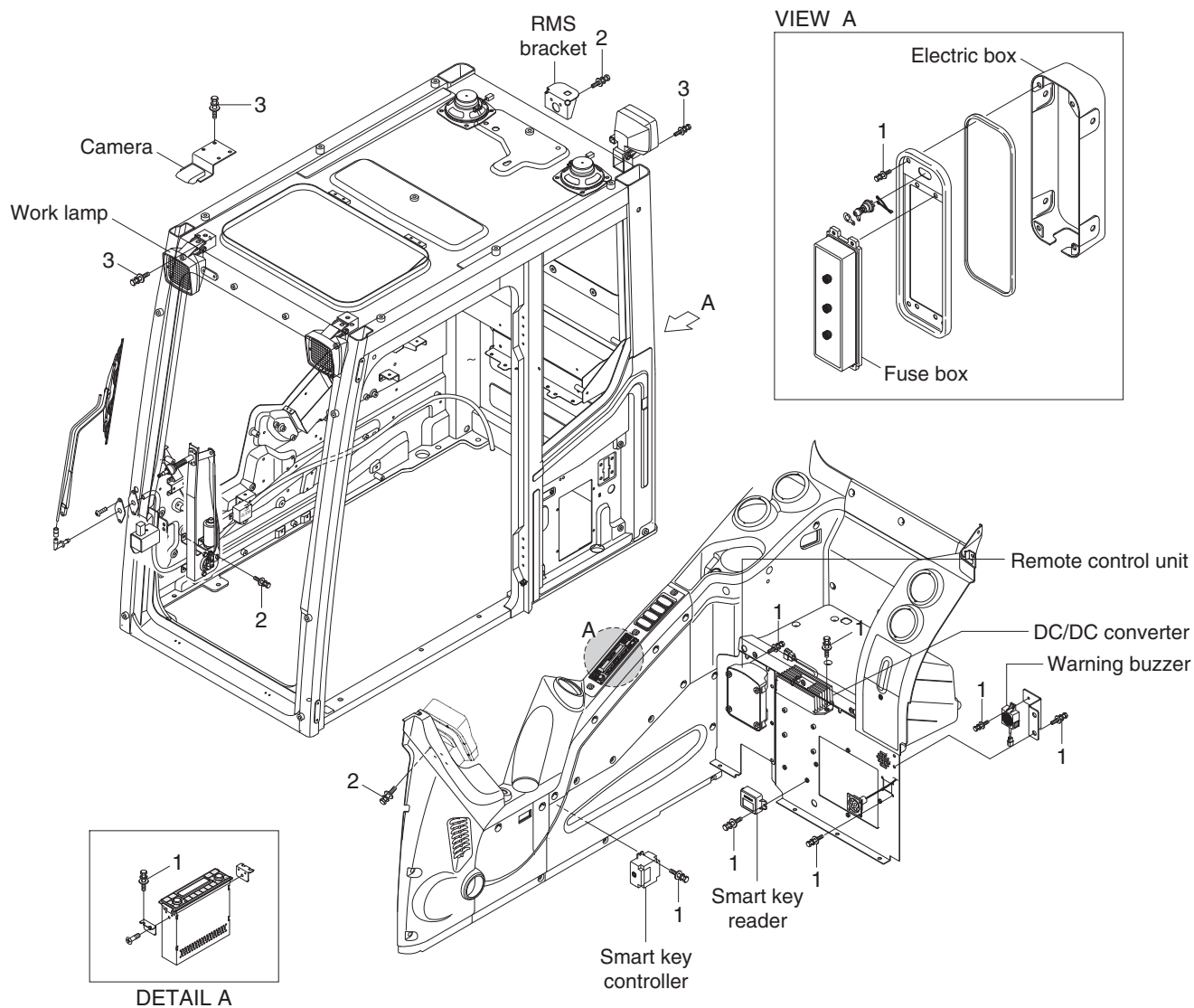
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· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 6×1.0	1.05±0.2	7.6±1.45
2	M 8×1.25	2.5±0.5	18.1±3.6

Item	Size	kgf · m	lbf · ft
3	M10×1.5	6.9±1.4	49.9±10.1
4	M12×1.75	12.8±3.0	92.6±21.7

2. ELECTRIC COMPONENTS MOUNTING 2



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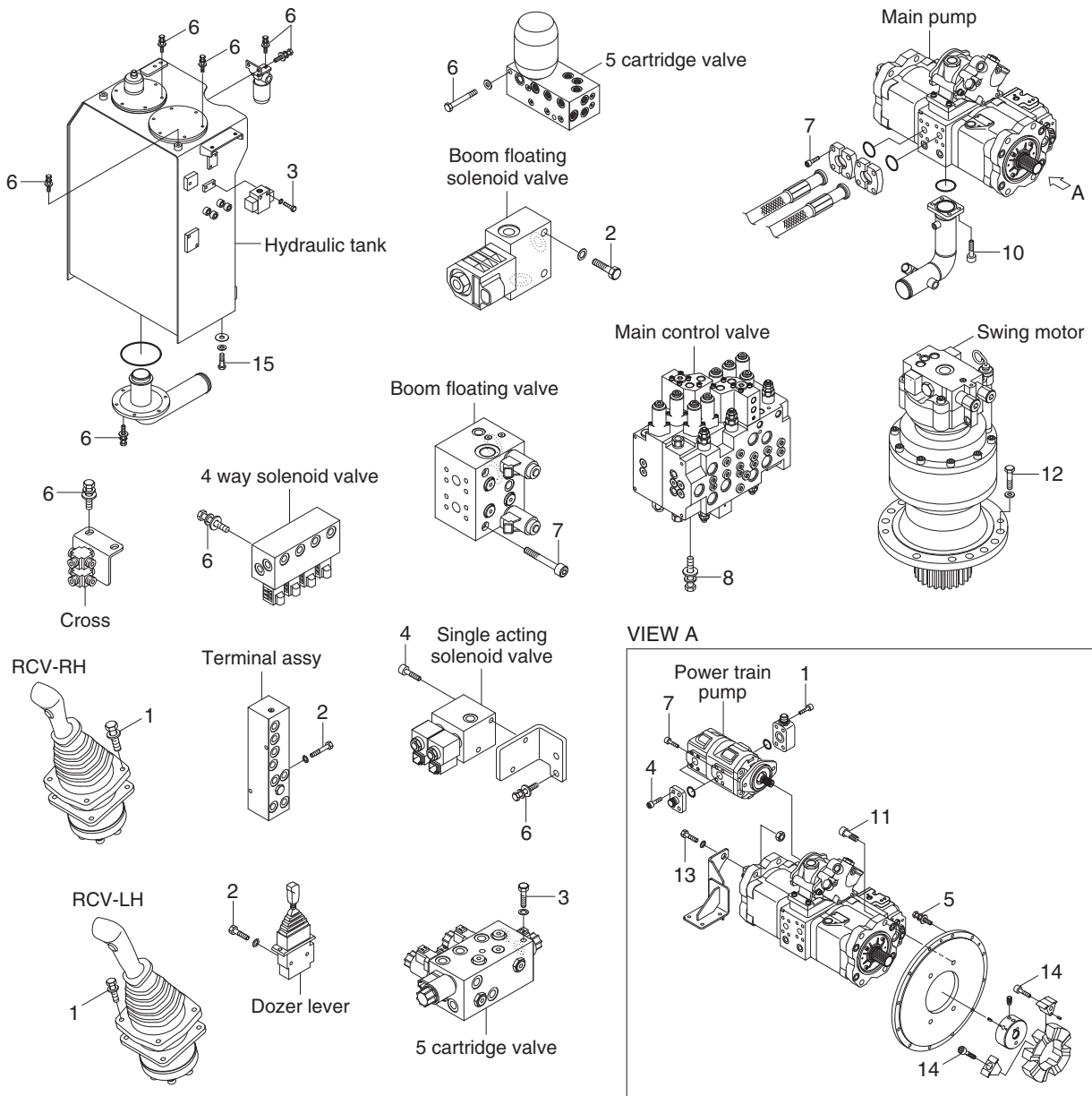
· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 6×1.0	1.05±0.2	7.6±1.45
2	M 8×1.25	2.5±0.5	18.1±3.6

Item	Size	kgf · m	lbf · ft
3	M10×1.5	6.9±1.4	49.9±10.1

GROUP 4 HYDRAULIC SYSTEM

1. HYDRAULIC COMPONENTS MOUNTING 1



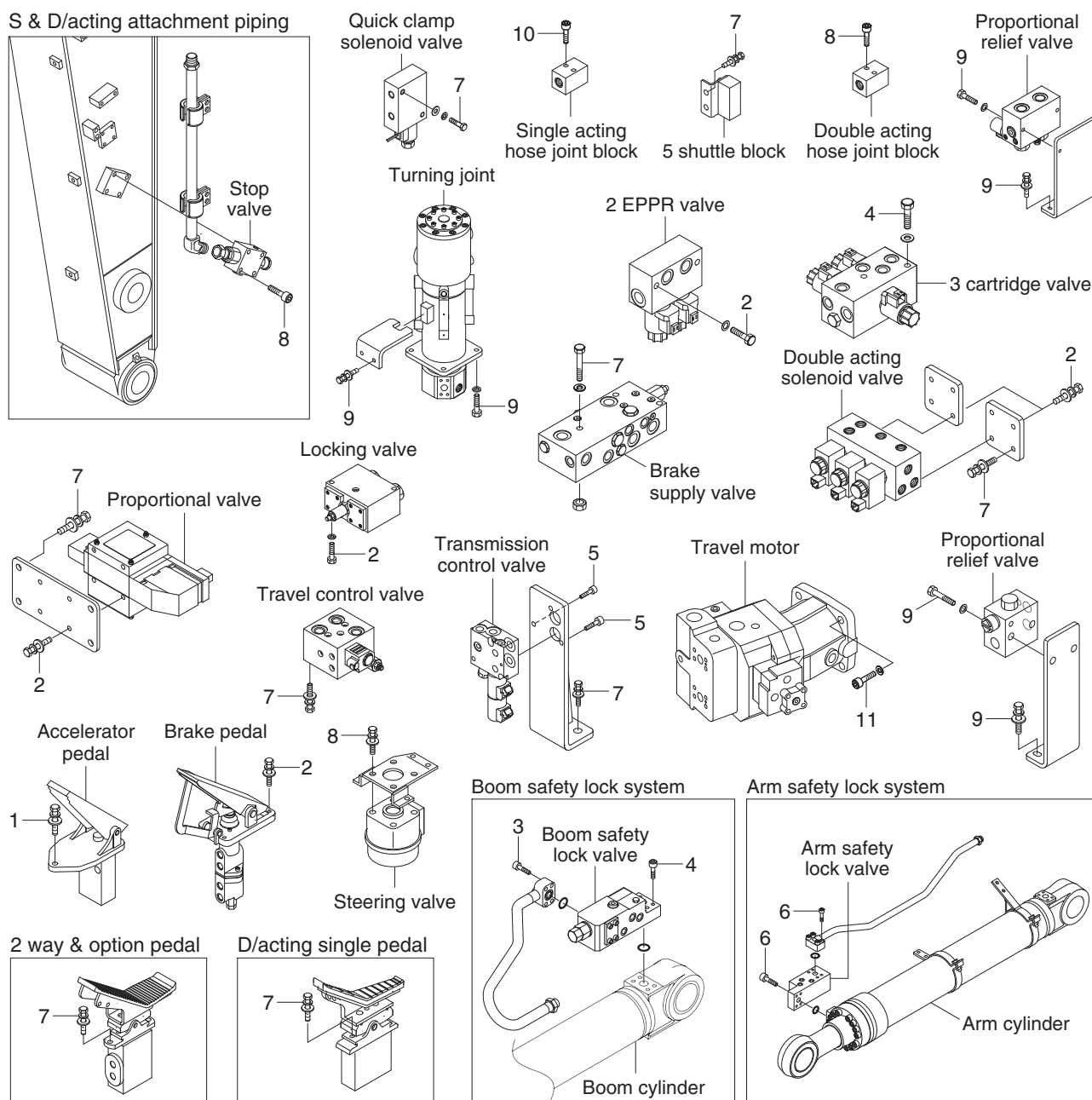
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• Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 6×1.0	1.05±0.2	7.6±1.45
2	M 8×1.25	2.5±0.5	18.1±3.6
3	M 8×1.25	3.43±0.7	24.8±5.1
4	M 8×1.25	4.05±0.8	29.3±5.8
5	M10×1.5	4.8±0.3	34.7±2.2
6	M10×1.5	6.9±1.4	49.9±10.1
7	M10×1.5	8.27±1.7	59.8±12.3
8	M12×1.75	12.2±1.3	88.2±9.4

Item	Size	kgf · m	lbf · ft
9	M12×1.75	12.8±3.0	92.6±21.7
10	M12×1.75	14.7±2.2	106±15.9
11	M16×2.0	25.0±2.5	181±18.1
12	M16×2.0	29.6±3.2	214±23.1
13	M16×2.0	29.7±4.5	215±32.5
14	M18×2.5	32±1.0	231±7.2
15	M20×2.5	57.9±5.8	419±42.0

2. HYDRAULIC COMPONENTS MOUNTING 2



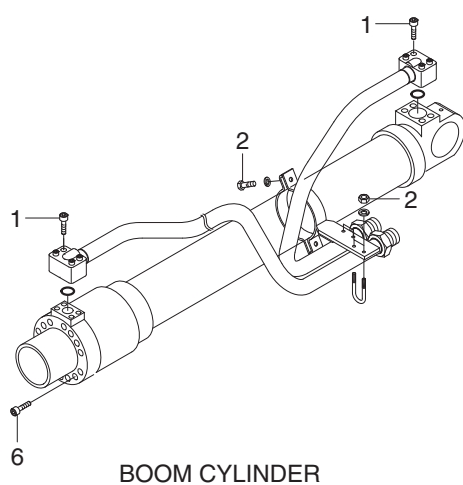
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• Tightening torque

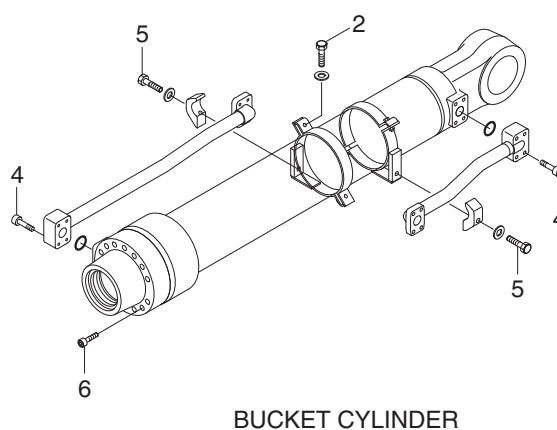
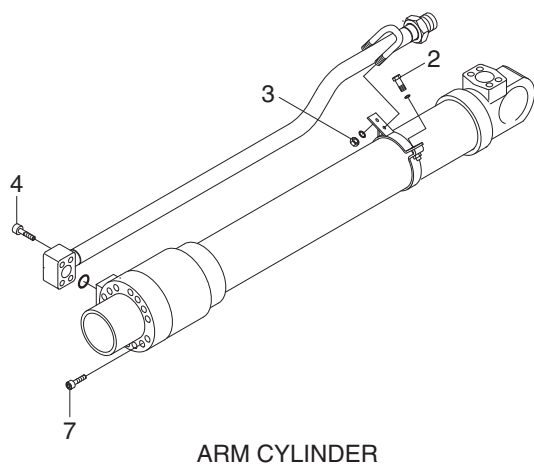
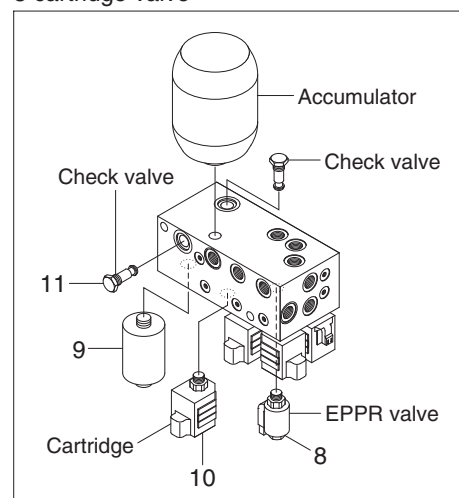
Item	Size	kgf · m	lbf · ft
1	M 6×1.0	1.05±0.2	7.6±1.45
2	M 8×1.25	2.5±0.5	18.1±3.6
3	M 8×1.25	2.7±0.3	19.5±2.2
4	M 8×1.25	3.43±0.7	24.2±5.1
5	M 8×1.25	4.05±0.8	29.3±5.8
6	M10×1.5	5.4±0.5	39.1±3.6

Item	Size	kgf · m	lbf · ft
7	M10×1.5	6.9±1.4	49.9±10.1
8	M10×1.5	8.27±1.7	59.8±12.3
9	M12×1.75	12.8±3.0	92.6±21.7
10	M12×1.75	14.7±2.2	106±15.9
11	M16×2.0	35.6±7.1	257±51.4

3. HYDRAULIC COMPONENTS MOUNTING 3



5 cartridge valve



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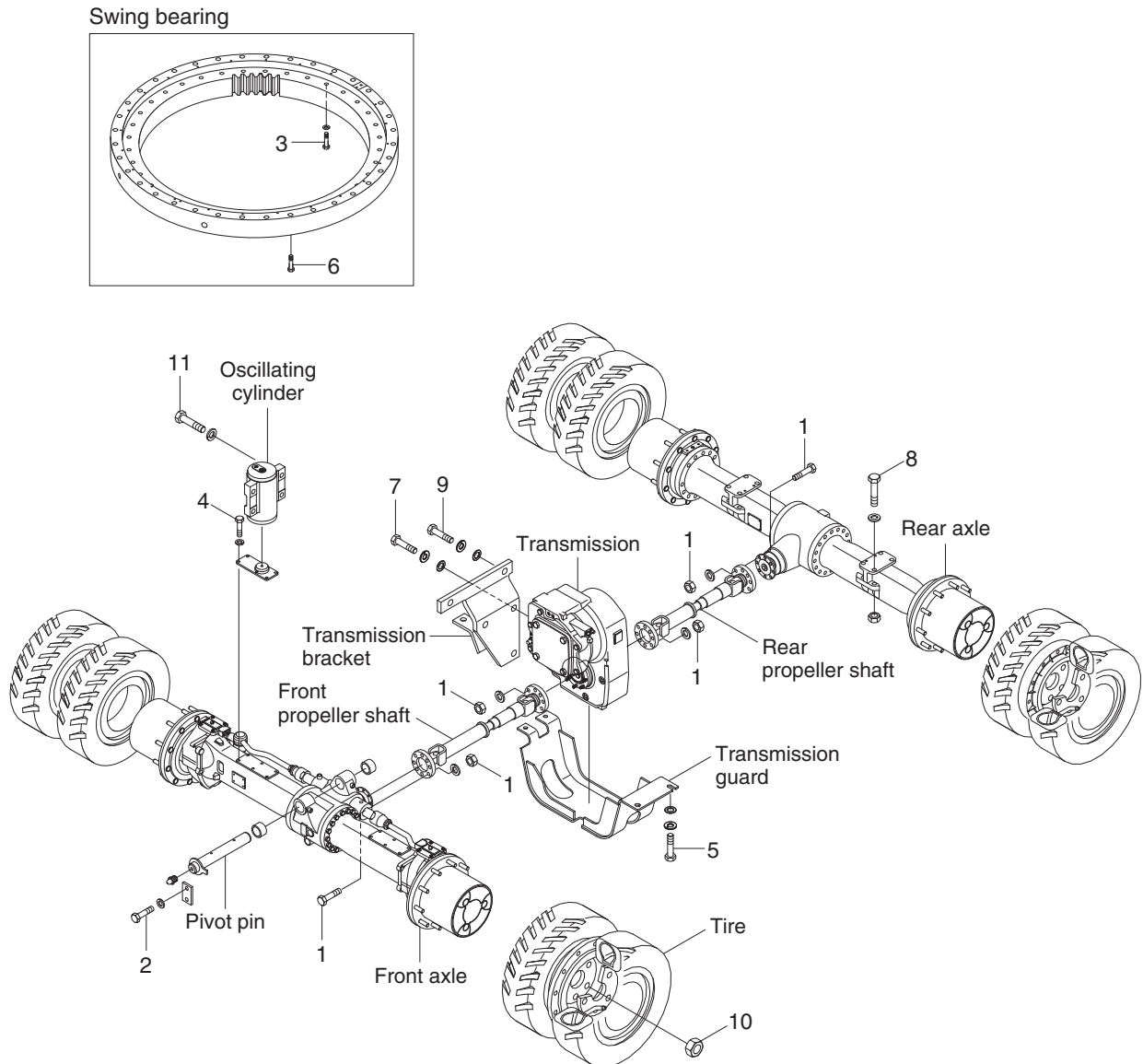
· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 8×1.25	2.7±0.3	19.5±2.2
2	M10×1.5	3.2±0.3	23.1±2.2
3	M10×1.5	5.0±1.0	36.2±7.2
4	M10×1.5	5.4±0.5	39.1±3.6
5	M12×1.75	5.5±0.6	39.8±4.3
6	M14×2	15±2	108±14.5

Item	Size	kgf · m	lbf · ft
7	M16×2	23±2	166±14.5
8	EPPR valve	2.5	18.1
9	Line filter	2.5	18.1
10	Cartridge	3.5	25.3
11	Check valve	4.0	28.9

GROUP 5 POWER TRAIN SYSTEM

1. POWER TRAIN MOUNTING



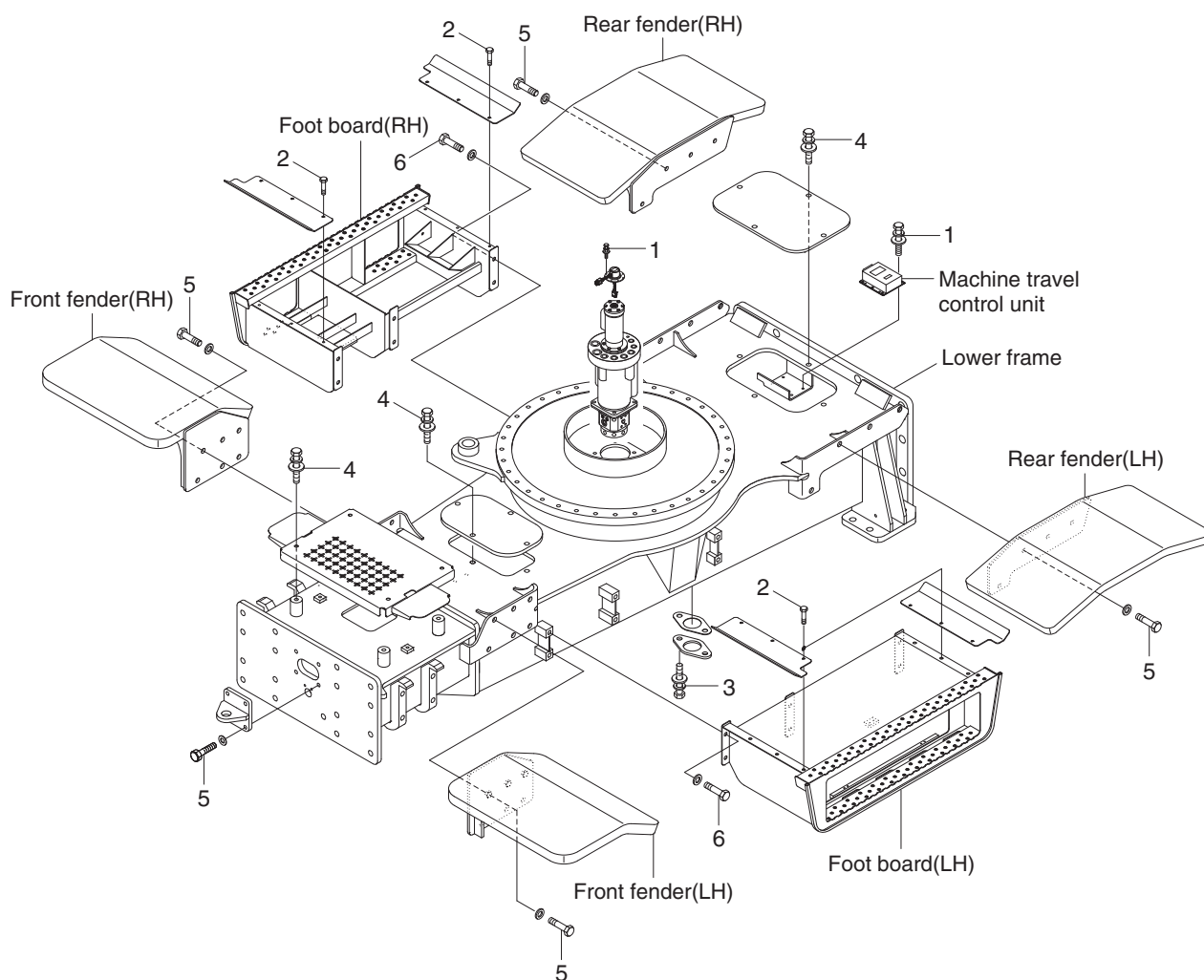
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• Tightening torque

Item	Size	kgf · m	lbf · ft
1	M10×1.0	5.9±0.6	42.7±4.3
2	M12×1.75	12.8±3.0	92.6±21.7
3	M16×1.5	29.7±3.0	215±21.7
4	M16×2.0	29.6±3.2	214±23.1
5	M16×2.0	29.7±4.5	215±32.5
6	M18×2.5	41.3±4.0	299±28.9

Item	Size	kgf · m	lbf · ft
7	M20×2.5	44±2.0	318±14.5
8	M20×2.5	58±6.3	420±45.6
9	M20×2.5	58.4±6.4	422±46.3
10	M22×1.5	60 ⁺⁰ ₋₅	434 ⁺⁰ _{-36.2}
11	M22×1.5	83.2±9.2	602±66.5

2. COVER AND FOOT BOARD



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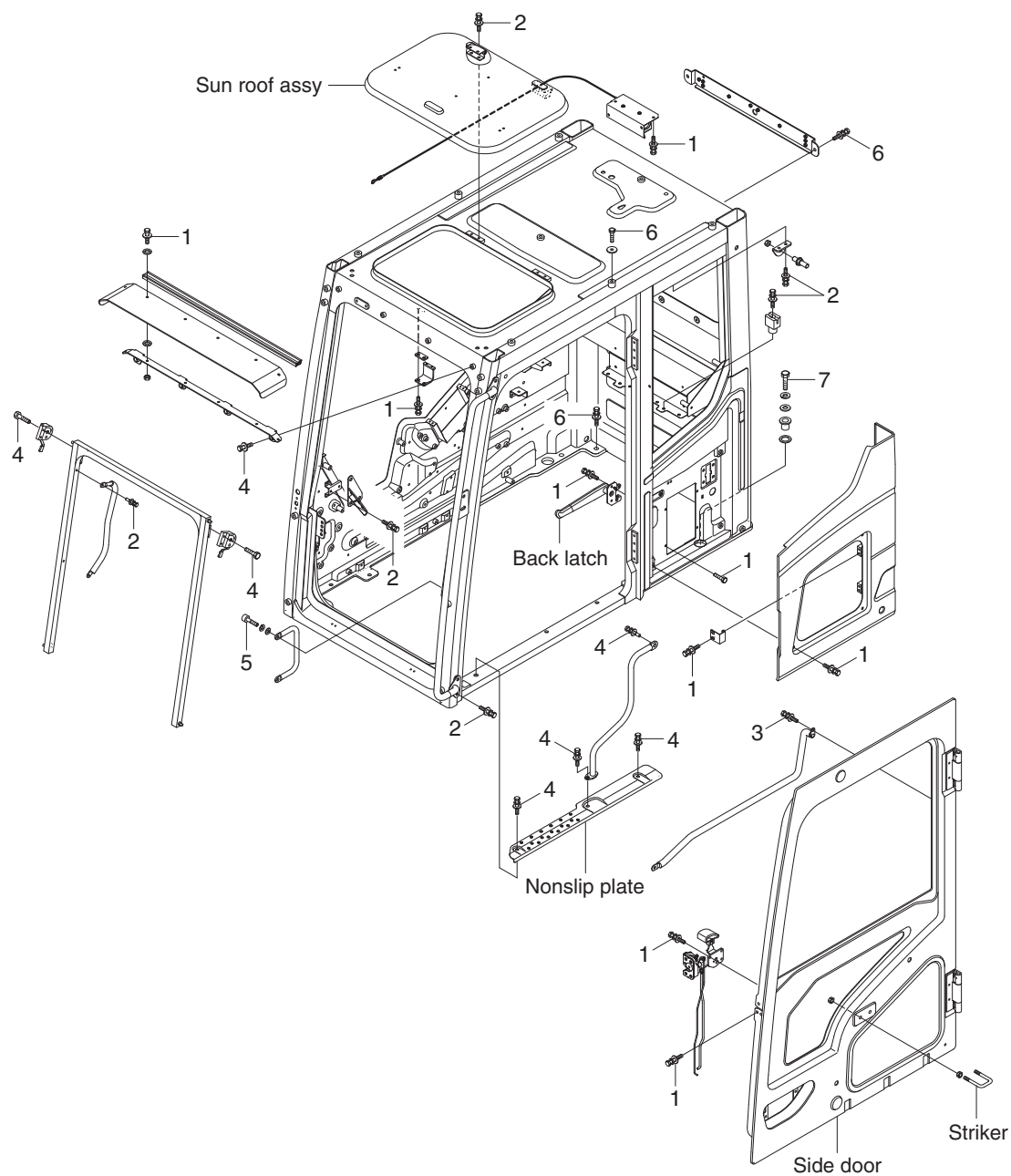
· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 6×1.0	1.05±0.2	7.6±1.45
2	M 8×1.25	2.5±0.5	18.1±3.6
3	M10×1.5	6.9±1.4	49.9±10.1

Item	Size	kgf · m	lbf · ft
4	M12×1.75	12.8±3.0	92.6±21.7
5	M16×2.0	29.7±4.5	215±32.5
6	M20×2.5	57.9±8.7	419±62.9

GROUP 6 STRUCTURE

1. CAB AND ACCESSORIES MOUNTING



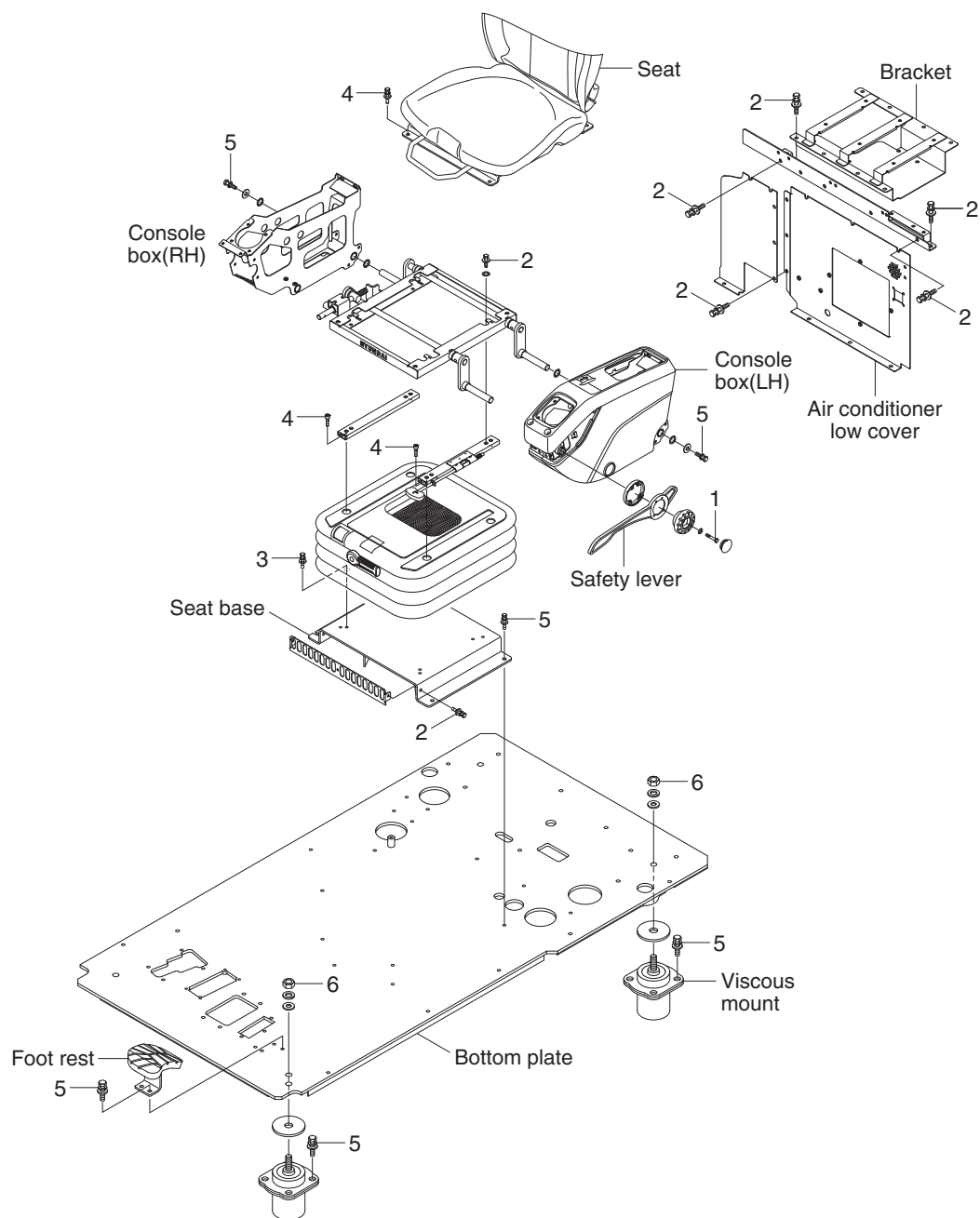
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• Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 6×1.0	1.05±0.2	7.6±1.45
2	M 8×1.25	2.5±0.5	18.1±3.6
3	M 8×1.25	3.43±0.7	24.8±5.1
4	M10×1.5	6.9±1.4	49.9±10.1

Item	Size	kgf · m	lbf · ft
5	M10×1.5	8.27±1.7	59.8±12.3
6	M12×1.75	12.8±3.0	92.6±21.7
7	M24×3.0	100±15	723±109

2. CAB INTERIOR MOUNTING



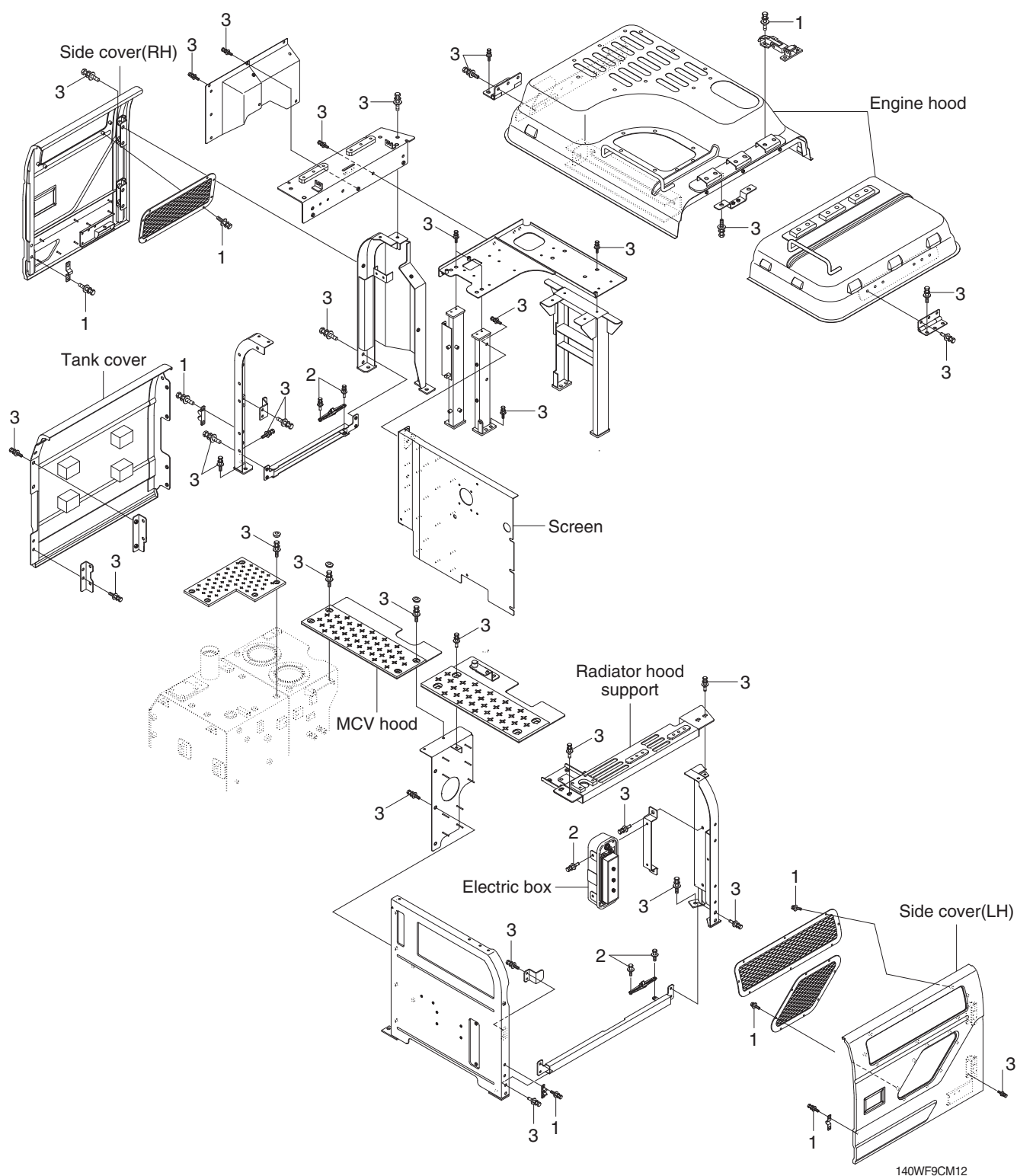
140WF9CM11

・ Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 6×1.0	1.05±0.2	7.6±1.45
2	M 8×1.25	2.5±0.5	18.1±3.6
3	M 8×1.25	3.43±0.7	24.8±5.1

Item	Size	kgf · m	lbf · ft
4	M 8×1.25	4.05±0.8	29.3±5.8
5	M10×1.5	6.9±1.4	49.9±10.1
6	M16×2.0	21.9±3.3	158±23.9

3. COWLING MOUNTING

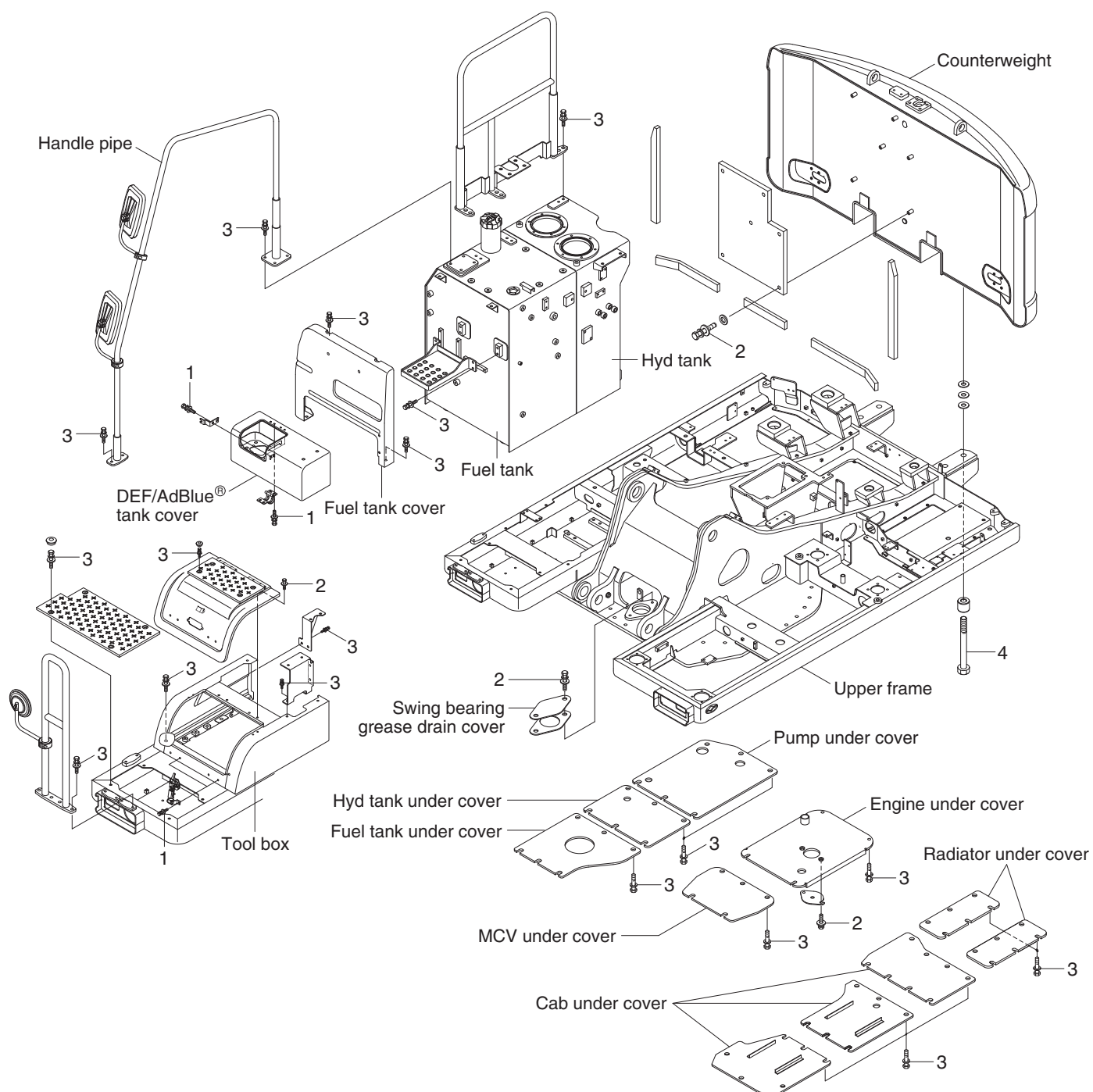


• Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 8×1.25	2.5±0.5	18.1±3.6
2	M10×1.5	6.9±1.4	49.9±10.1

Item	Size	kgf · m	lbf · ft
3	M12×1.75	12.8±3.0	92.6±21.7

4. COUNTERWEIGHT AND COVERS MOUNTING

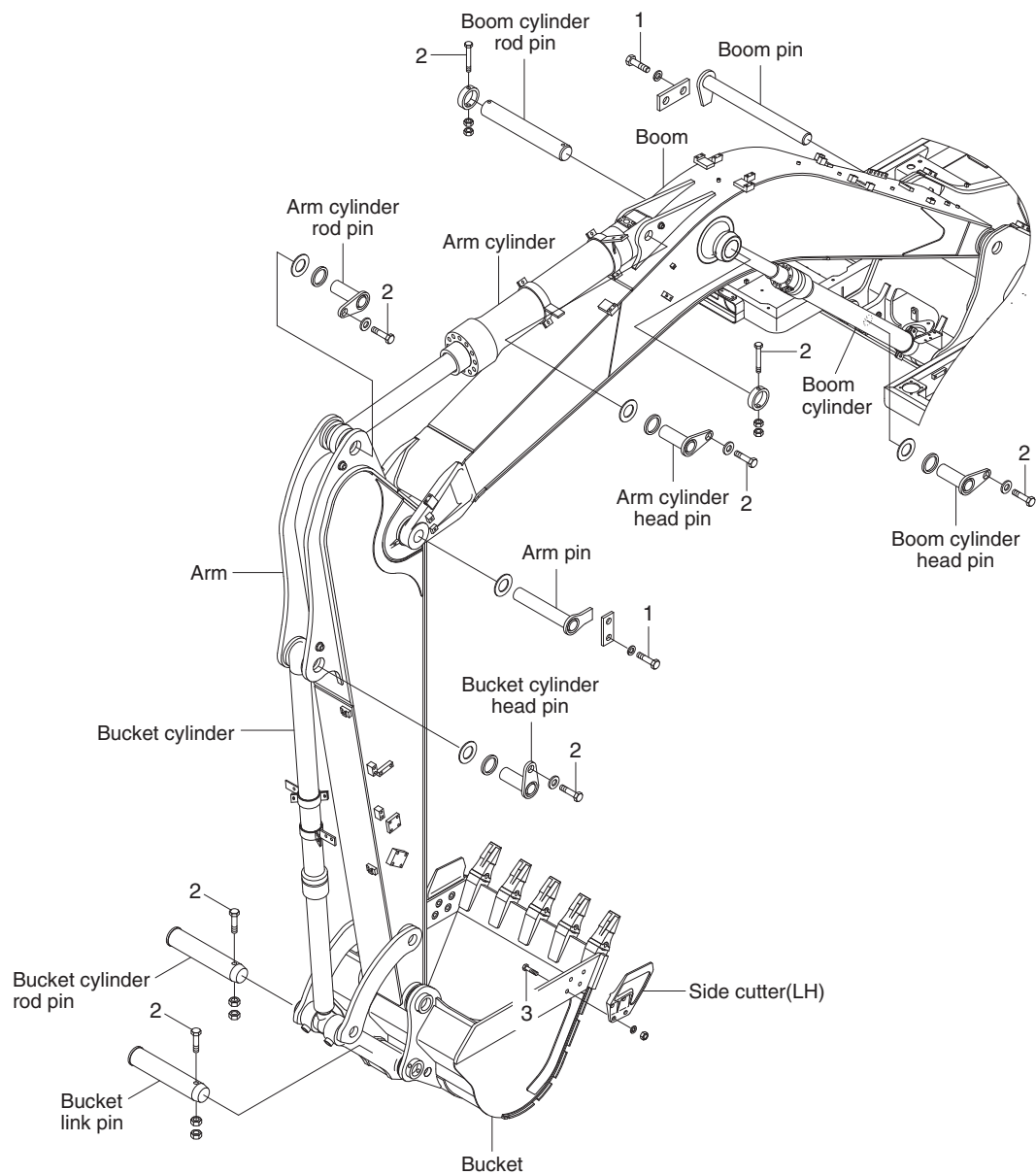


· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 8 × 1.25	2.5 ± 0.5	18.1 ± 3.6
2	M10 × 1.5	6.9 ± 1.4	49.9 ± 10.1

Item	Size	kgf · m	lbf · ft
3	M12 × 1.75	12.8 ± 3.0	92.6 ± 21.7
4	M27 × 3.0	135 ± 15	976 ± 108

GROUP 7 WORK EQUIPMENT



140WF9CM14

· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M12×1.75	12.8±3.0	92.6±21.7
2	M16×2.0	29.7±4.5	215±32.5
3	M20×2.5	57.9±8.7	419±62.9