SECTION 9 COMPONENT MOUNTING TORQUE

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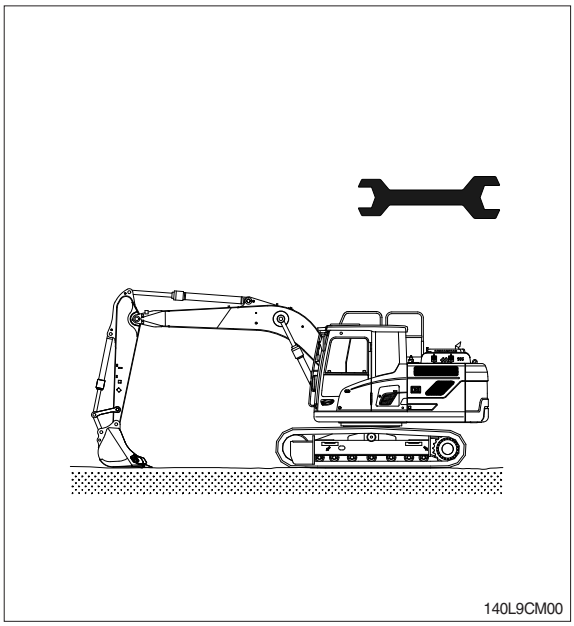
GROUP 1 INTRODUCTION GUIDE

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.
Be careful not to use metric fastener in case inch fastener was used.

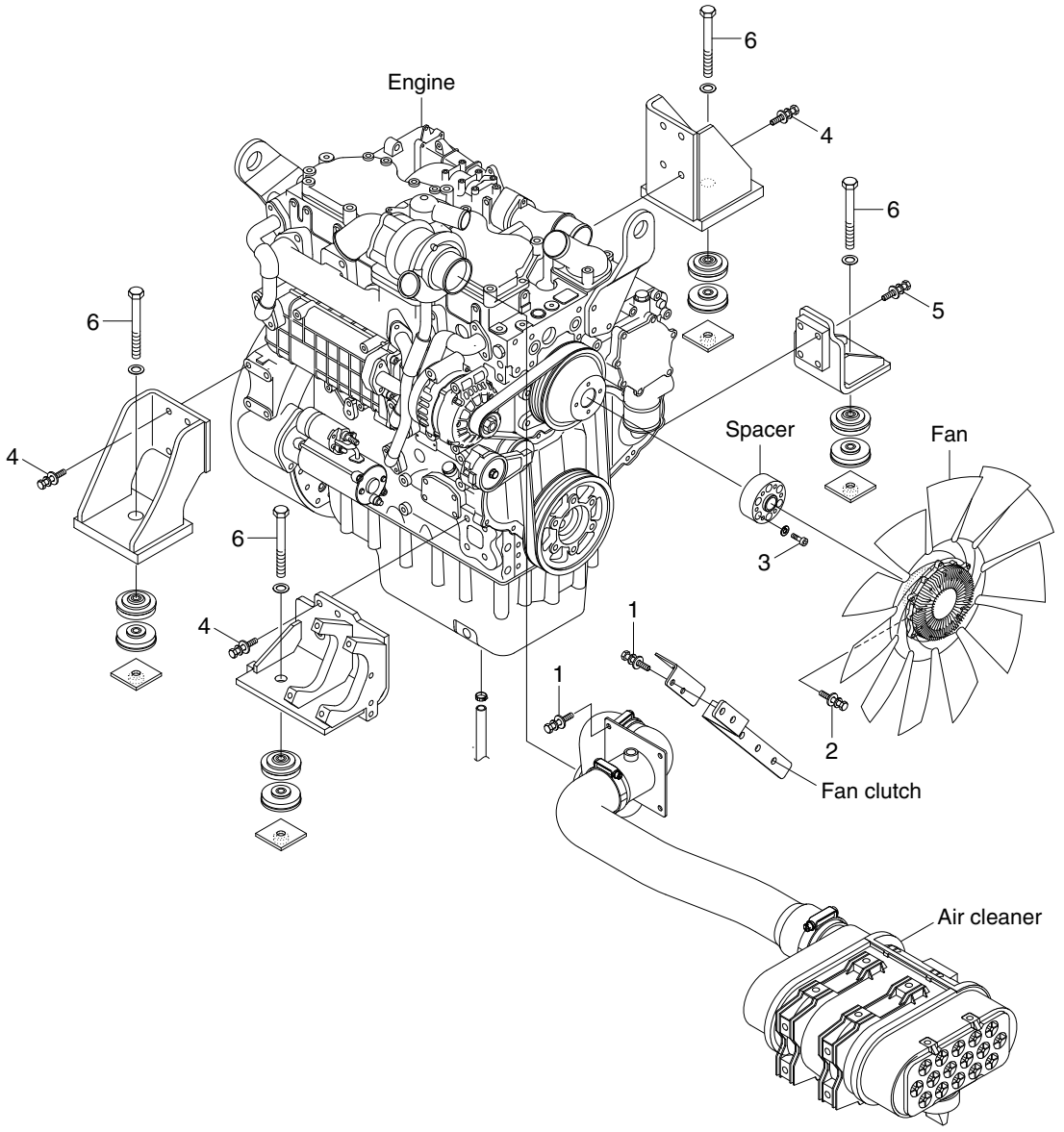
※ Before installation, clean all the components with a non-corrosive cleaner. Bolts and threads must not be worn or damaged.



140L9CM00

GROUP 2 ENGINE SYSTEM

1. ENGINE AND ACCESSORIES MOUNTING



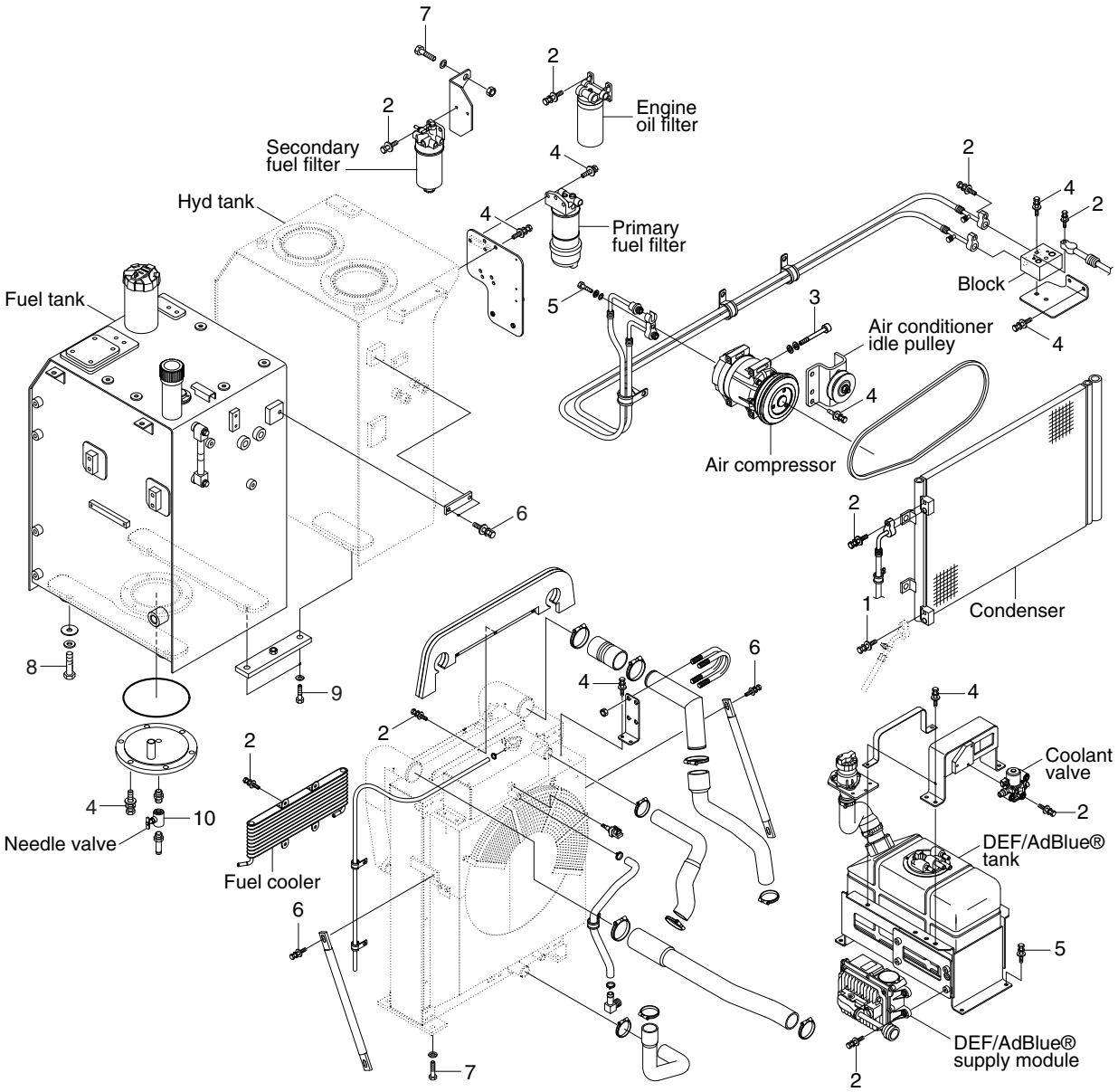
140L9CM01

· 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	7.9±2.0	57.1±14.5
5	M12×1.75	11.2±1.1	81±8.0
6	M16×2.0	34.0±4.0	246±28.9

2. COOLING SYSTEM AND FUEL TANK MOUNTING



140L9CM02

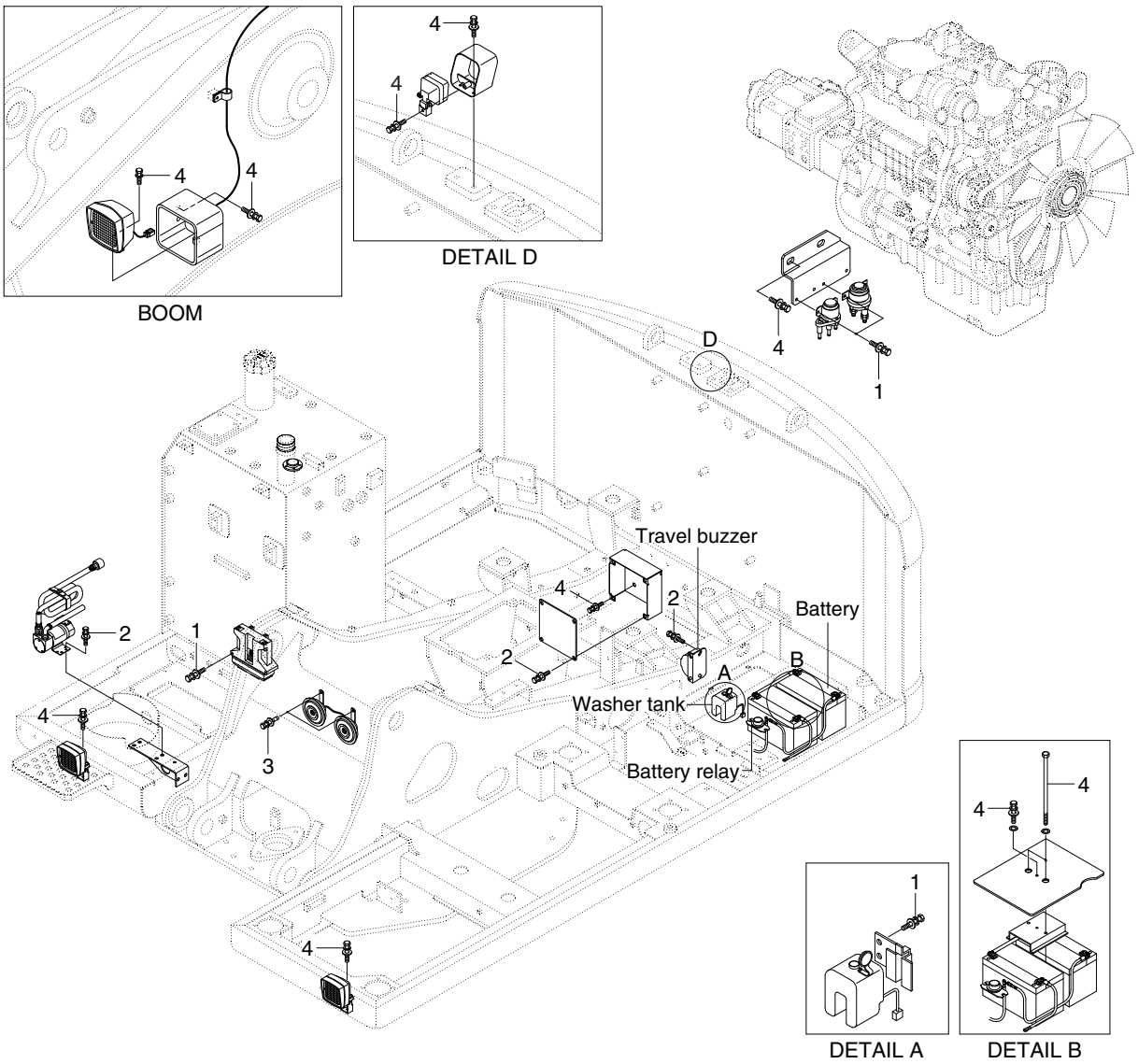
· Tightening torque

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	46±5.1	333±36.9
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



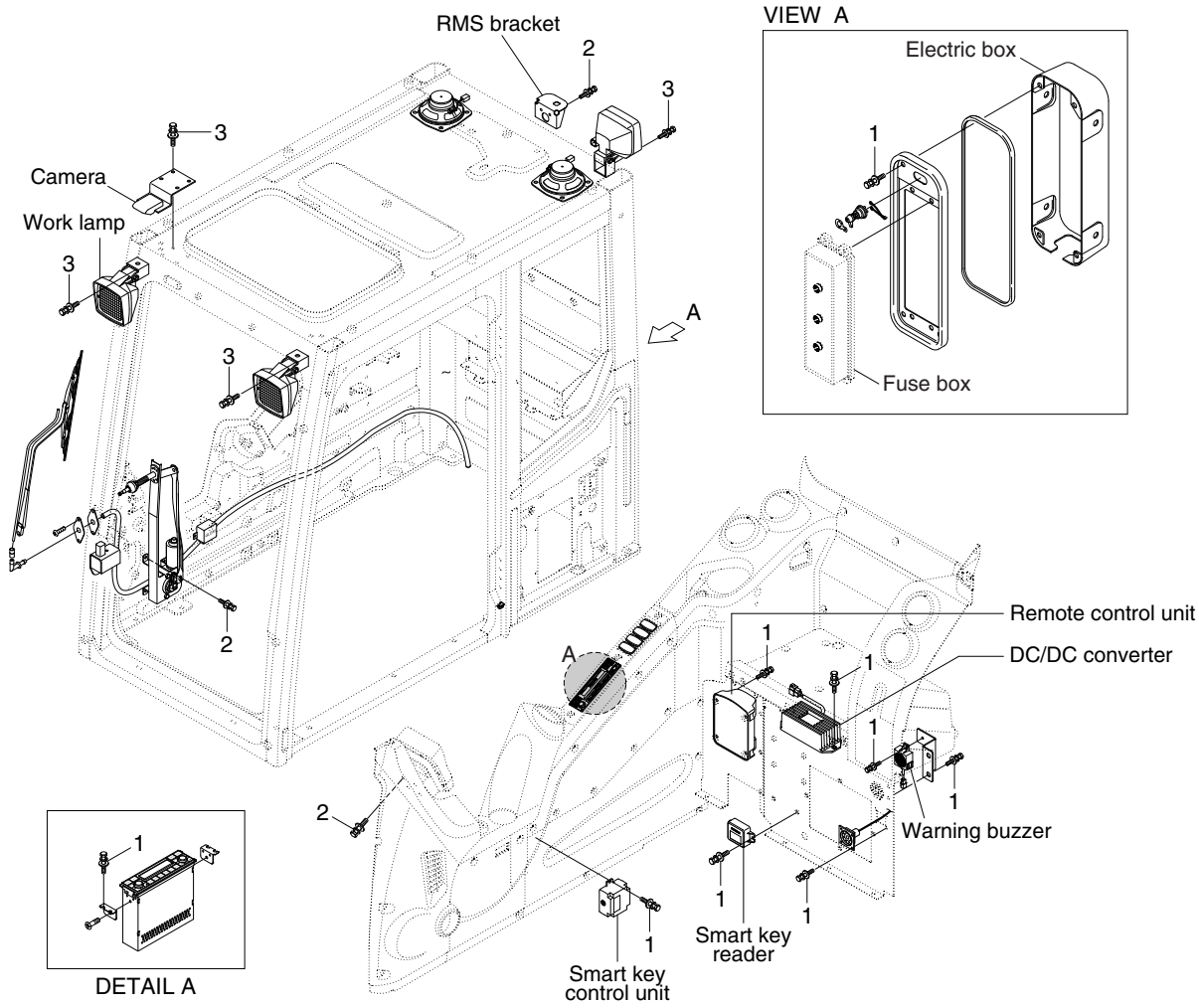
140L9CM03

· 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	M 8×1.25	3.43±0.7	24.8±5.1
4	M10×1.5	6.9±1.4	49.9±10.1

2. ELECTRIC COMPONENTS MOUNTING 2

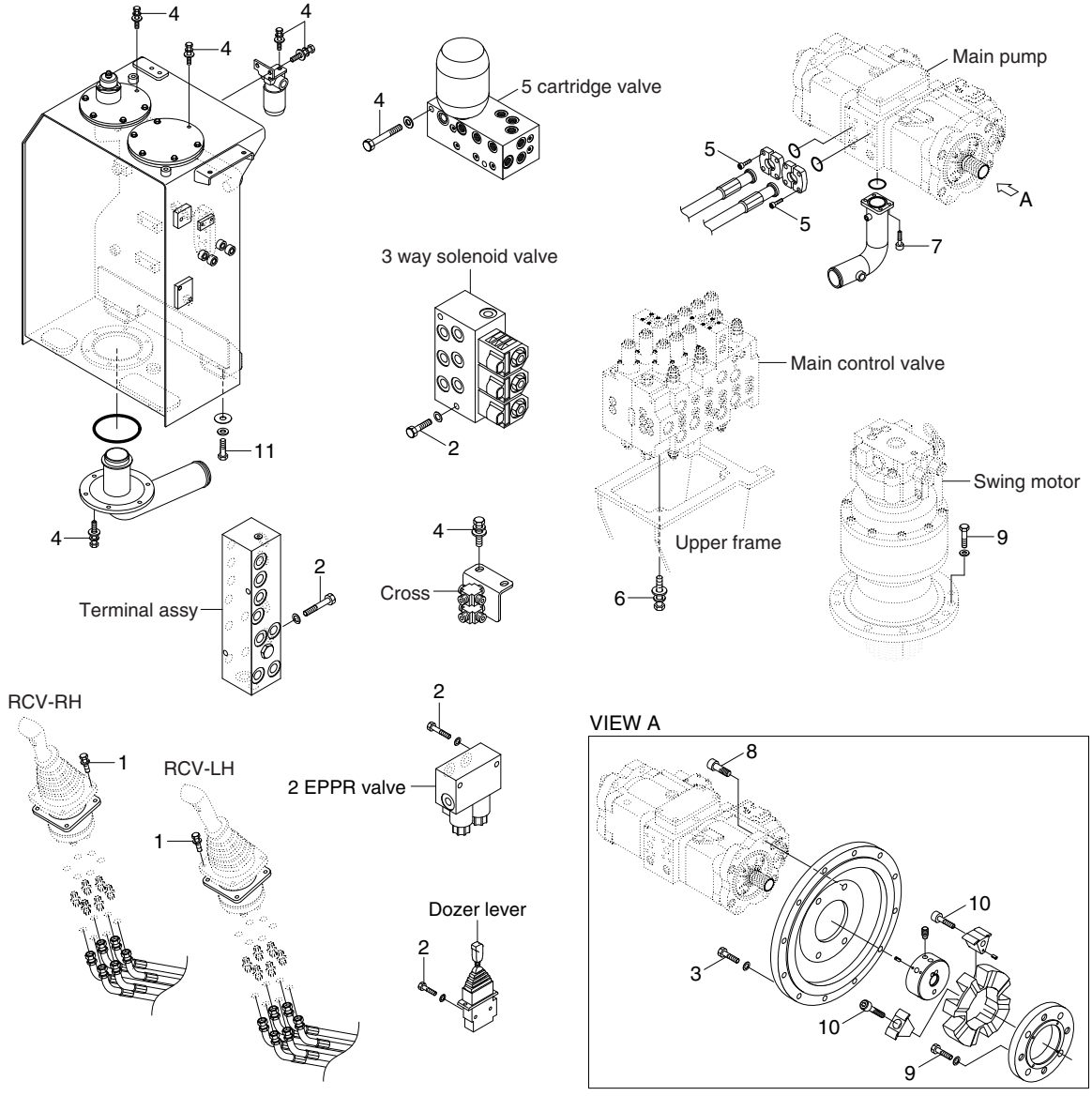


140L9CM04

· 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

1. HYDRAULIC COMPONENTS MOUNTING 1



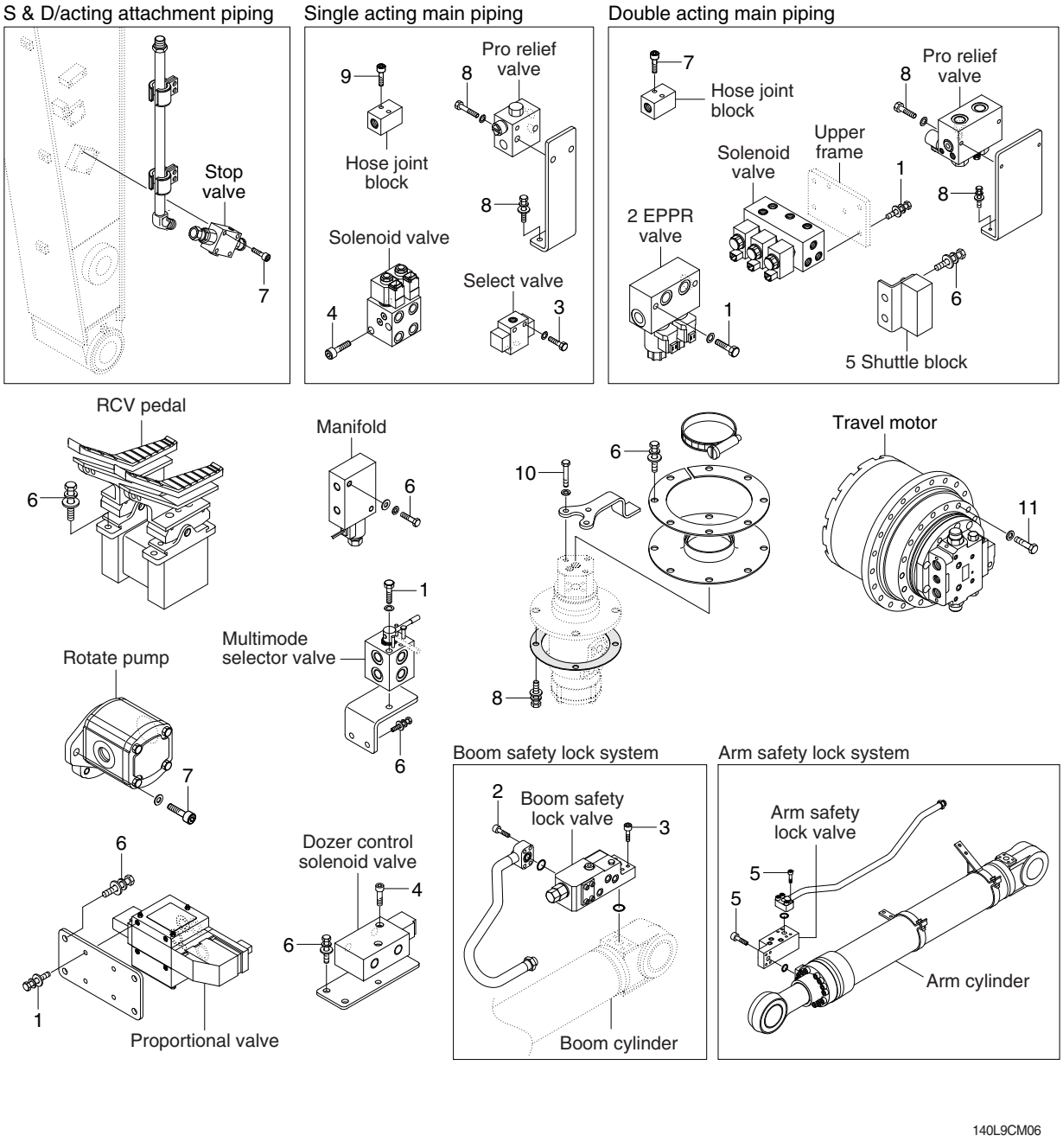
140L9CM05

· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 6×1.0	1.05±0.2	7.6±1.45
2	M 6×1.0	1.44±0.3	10.4±2.2
3	M10×1.5	6.0±1.5	43.4±10.9
4	M10×1.5	6.9±1.4	49.9±10.1
5	M10×1.5	8.27±1.7	59.8±12.3
6	M12×1.75	12.2±1.3	88.2±9.4

Item	Size	kgf · m	lbf · ft
7	M12×1.75	14.7±2.2	106±15.9
8	M16×2.0	22.0±1.5	159±10.9
9	M16×2.0	29.6±3.2	214±23.1
10	M16×2.0	32.0±1.6	231±11.6
11	M20×2.5	46±5.1	333±36.9

2. HYDRAULIC COMPONENTS MOUNTING 2



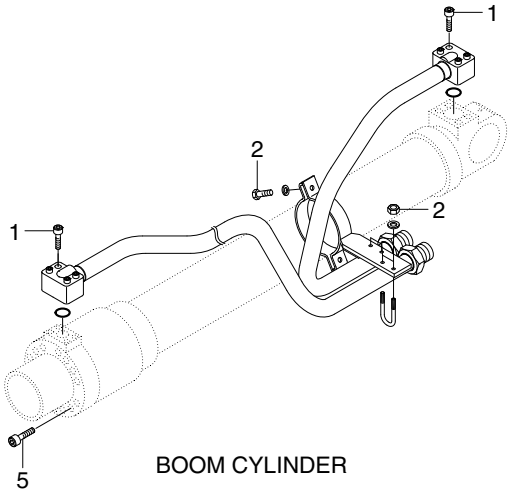
140L9CM06

· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 8×1.25	2.5±0.5	18.1±3.6
2	M 8×1.25	2.7±0.3	19.5±2.2
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	5.4±0.5	39.1±3.6
6	M10×1.5	6.9±1.4	49.9±10.1

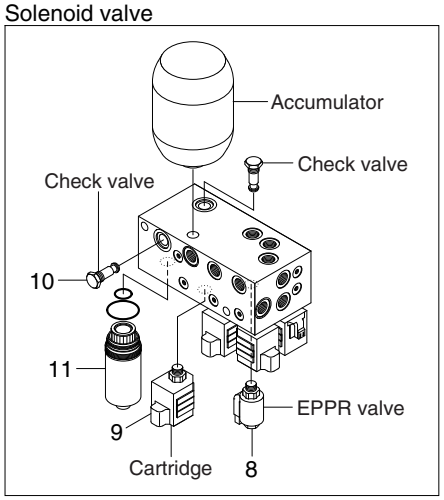
Item	Size	kgf · m	lbf · ft
7	M10×1.5	8.27±1.7	59.8±12.3
8	M12×1.75	12.8±3.0	92.6±21.7
9	M12×1.75	14.7±2.2	106±15.9
10	M14×2.0	19.6±2.9	142±21.0
11	M16×2.0	25.7±4.0	186±28.9

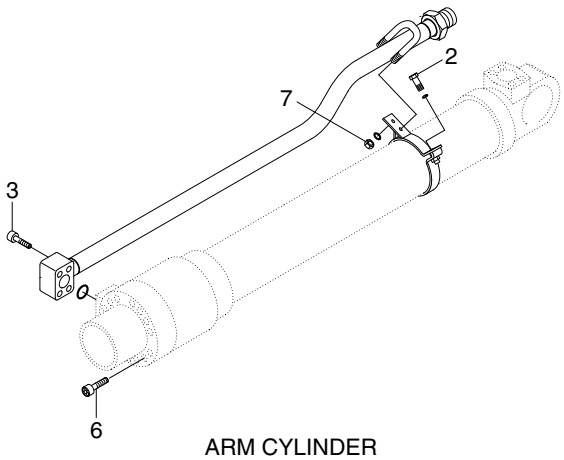
3. HYDRAULIC COMPONENTS MOUNTING 3



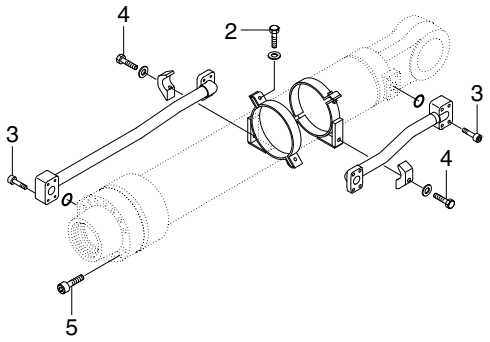
BOOM CYLINDER

Solenoid valve





ARM CYLINDER



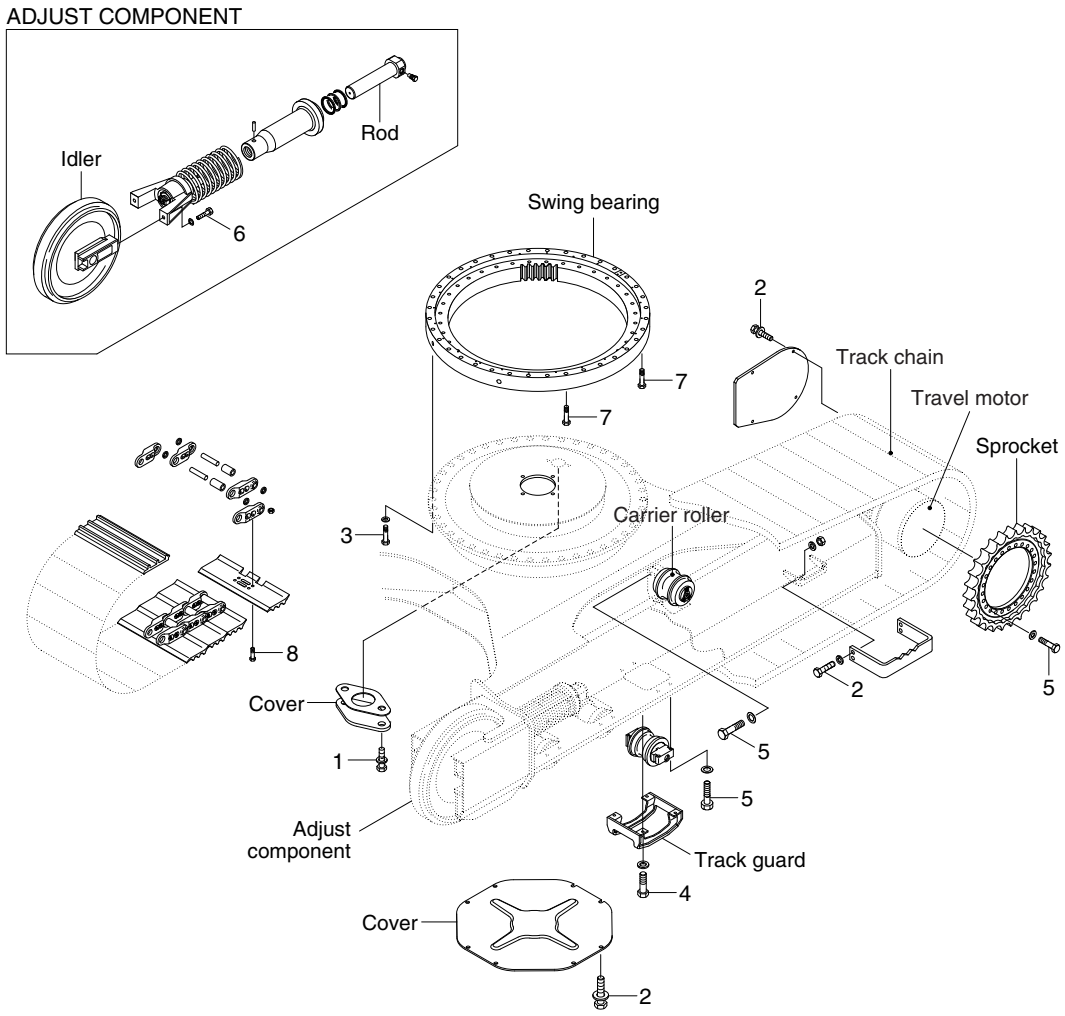
BUCKET CYLINDER

140L9CM07

· 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	5.4±0.5	39.1±3.6
4	M12×1.75	5.5±0.6	39.8±4.3
5	M14×2.0	15±2.0	108±14.5
6	M16×2.0	23±2.0	166±14.5

Item	Size	kgf · m	lbf · ft
7	M10×1.5	5.0±1.0	36.2±7.2
8	EPPR valve	2.5	18.1
9	Cartridge	3.5	25.3
10	Check valve	4.0	28.9
11	Line filter	2.5	18.1



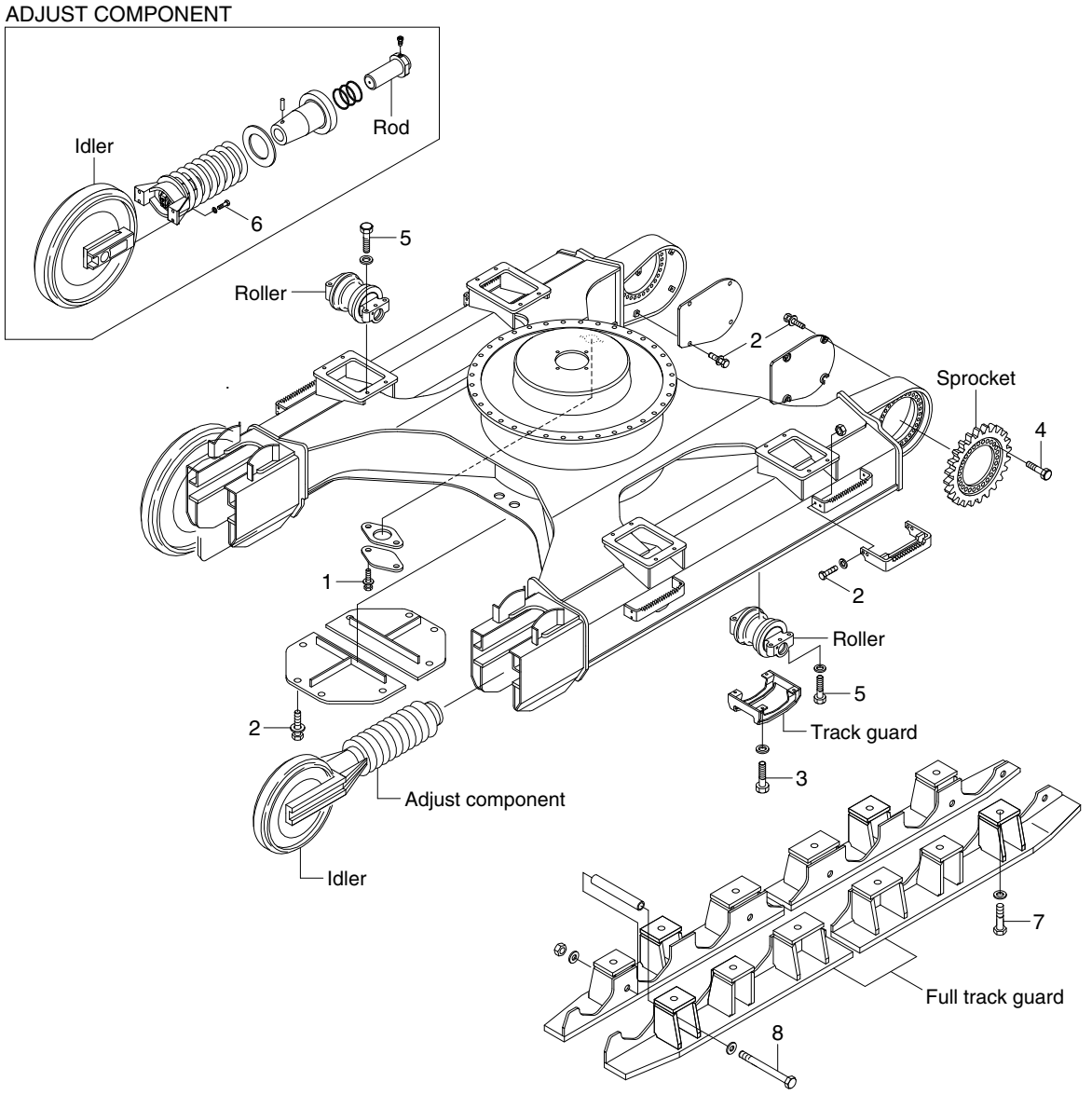
140L9CM08

· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M10×1.5	6.9±1.4	49.9±10.1
2	M12×1.75	12.8±3.0	92.6±21.7
3	M16×1.5	31.3±3.2	226±23.1
4	M16×2.0	29.6±3.2	214±23.1

Item	Size	kgf · m	lbf · ft
5	M16×2.0	29.7±3.0	215±23.1
6	M16×2.0	29.7±4.5	215±32.5
7	M18×2.5	41.3±4.5	299±32.5
8	5/8"-18 UNF	42±4.0	304±28.9

UNDERCARRIAGE MOUNTING (HIGH WALKER)



140L9CM09

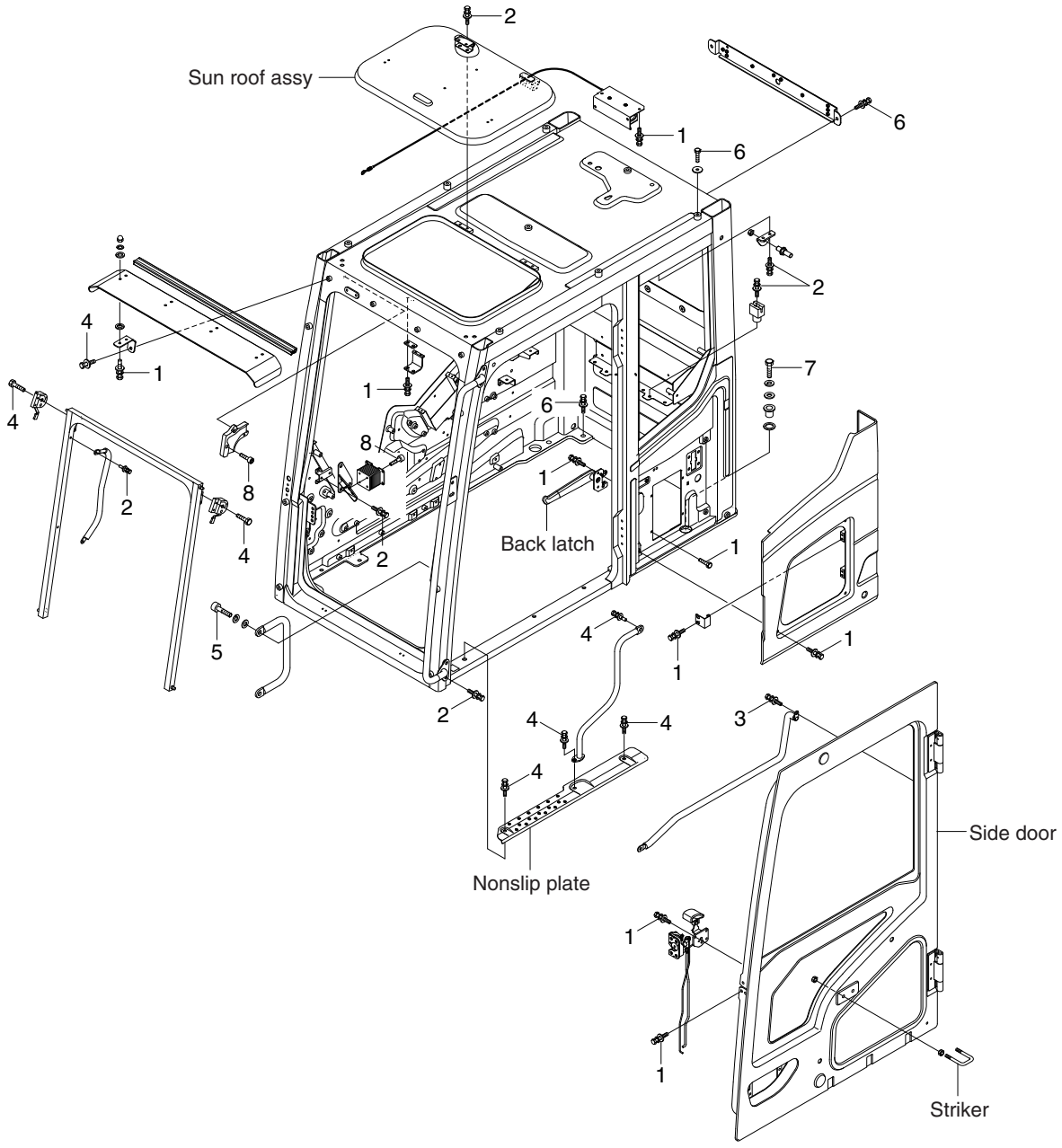
· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M10×1.5	6.9±1.4	49.9±10.1
2	M12×1.75	12.8±3.0	92.6±21.7
3	M16×2.0	29.6±3.2	214±23.1
4	M16×2.0	29.7±3.0	215±21.7

Item	Size	kgf · m	lbf · ft
5	M20×2.5	57.9±6.0	419±43.4
6	M16×2.0	29.7±4.5	215±32.5
7	M20×2.5	57.9±8.7	419±62.9
8	M24×3.0	100±15	723±108

GROUP 6 STRUCTURE

1. CAB AND ACCESSORIES MOUNTING



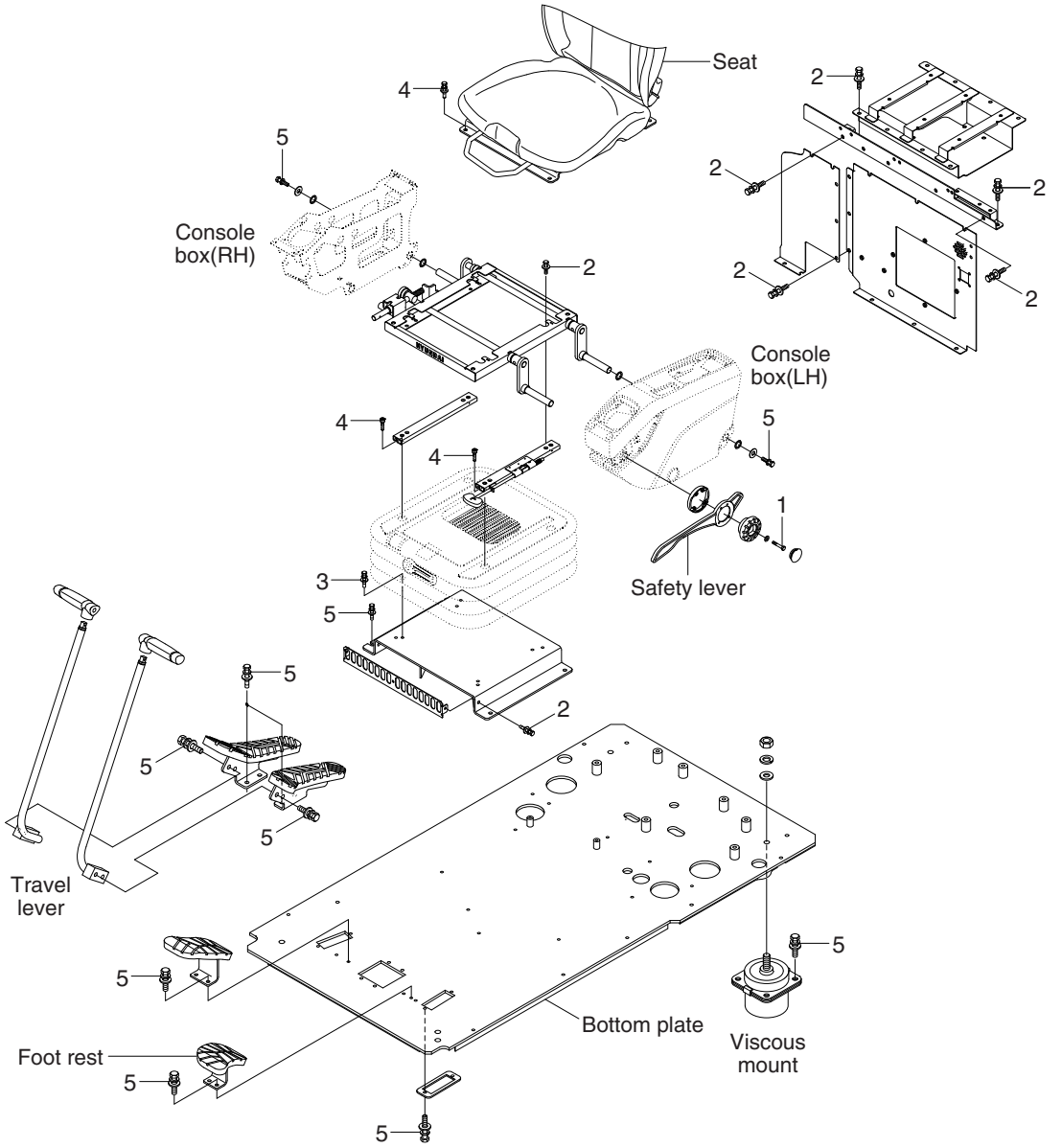
140L9CM10

· 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±108
8	M 6×1.0	1.72±0.35	12.4±2.2

2. CAB INTERIOR MOUNTING



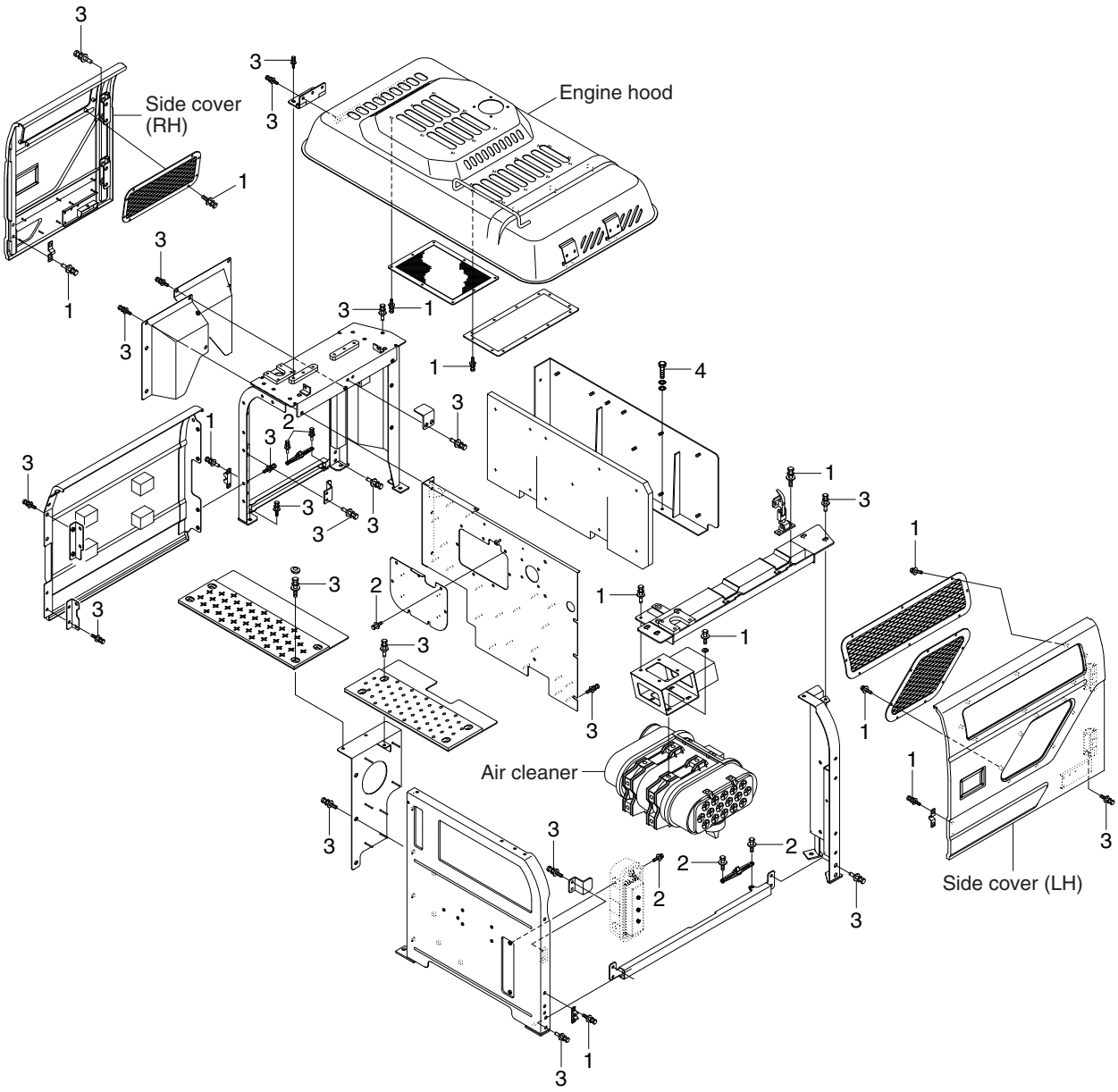
140L9CM11

· 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

3. COWLING MOUNTING



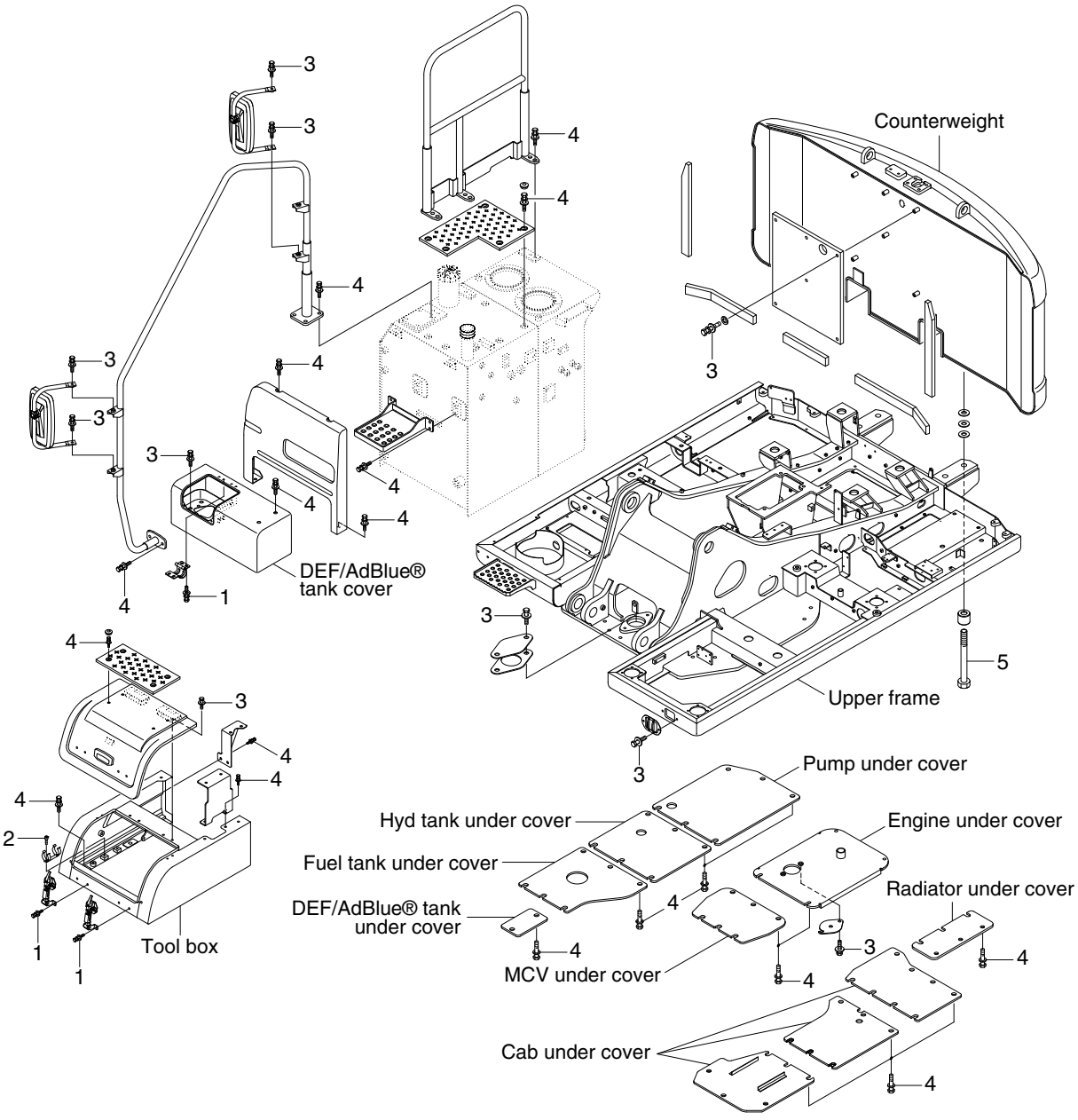
140L9CM12

· 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	M16×2.0	29.7±4.5	215±32.5

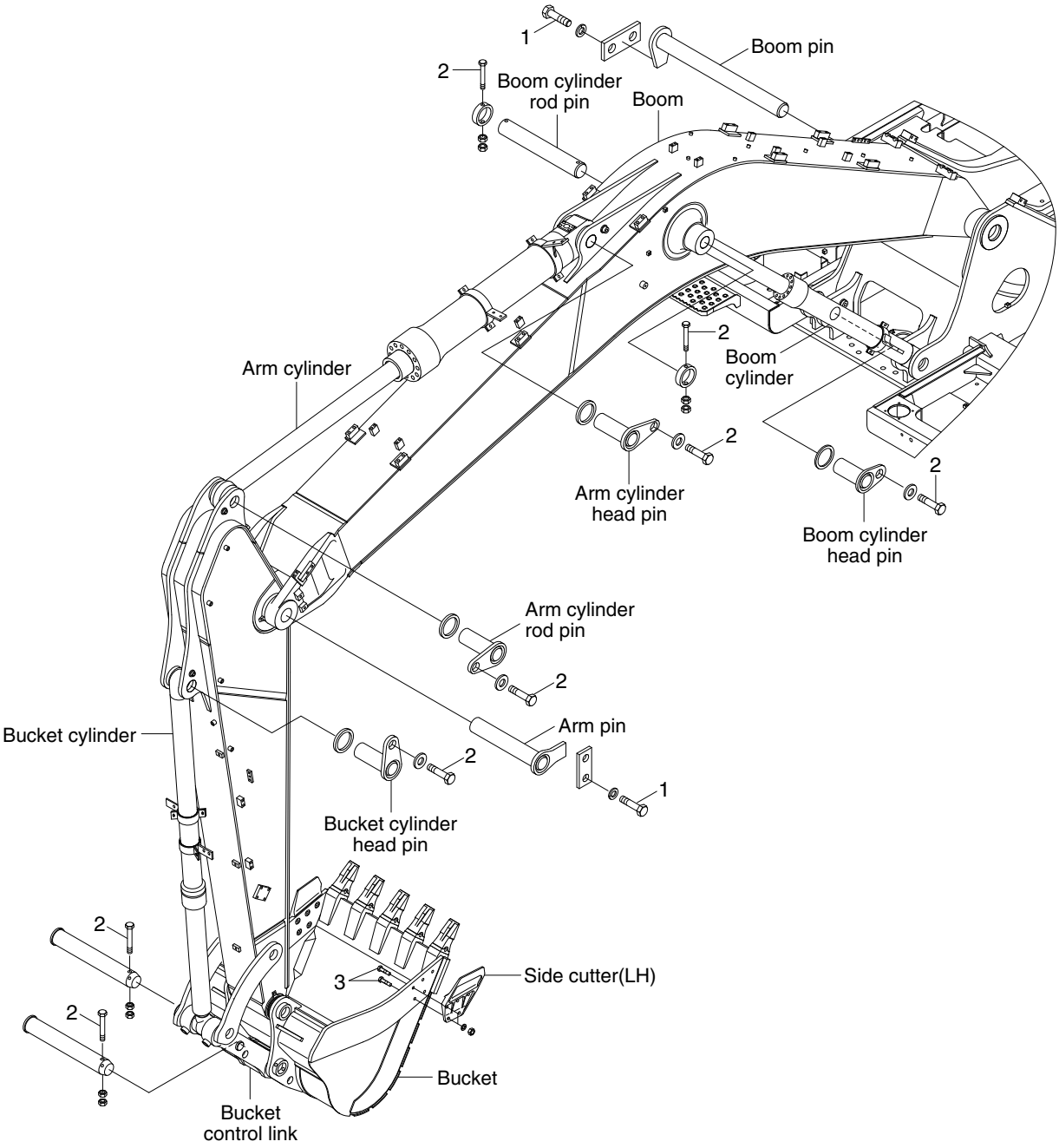
4. COUNTERWEIGHT AND COVERS MOUNTING



· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 8×1.25	2.5±0.5	18.1±3.6
2	M 8×1.25	4.05±0.8	29.3±5.8
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	M27×3.0	135±15	976±108



140L9CM14

· 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