

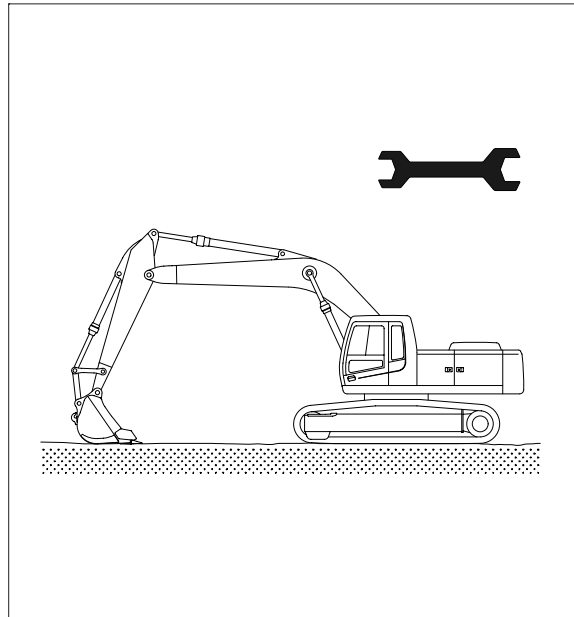
SECTION 9 COMPONENT MOUNTING TORQUE

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SECTION 9 COMPONENT MOUNTING TORQUE

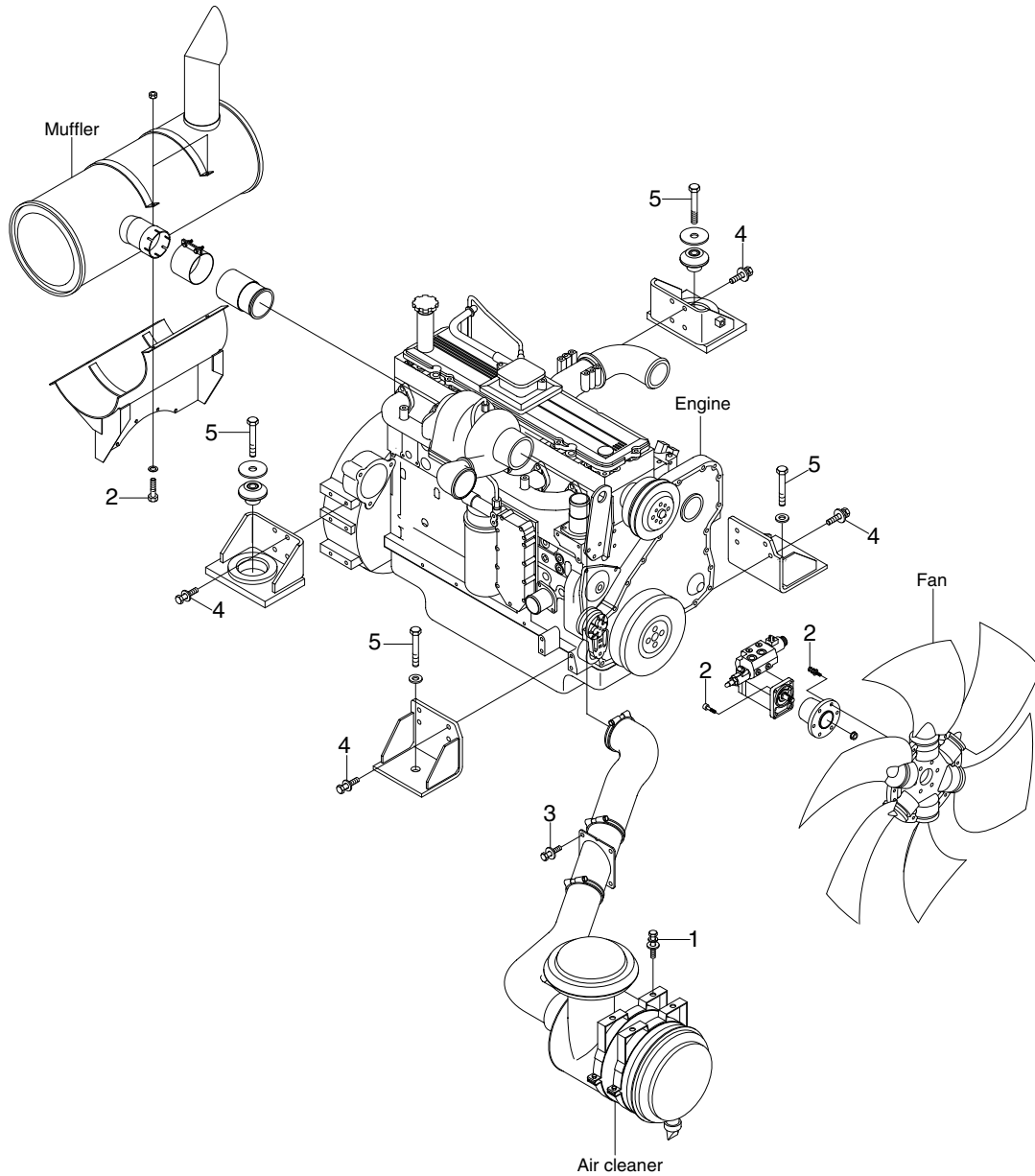
GROUP 1 INTRODUCTION GUIDE

1. This section shows bolt specifications and standard torque values needed when mounting components to the machine.
 2. Use genuine Hyundai spare parts.
We expressly point out that Hyundai will not accept any responsibility for defects resulted from non-genuine parts.
In such cases Hyundai 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.



GROUP 2 ENGINE SYSTEM

ENGINE AND ACCESSORIES MOUNTING

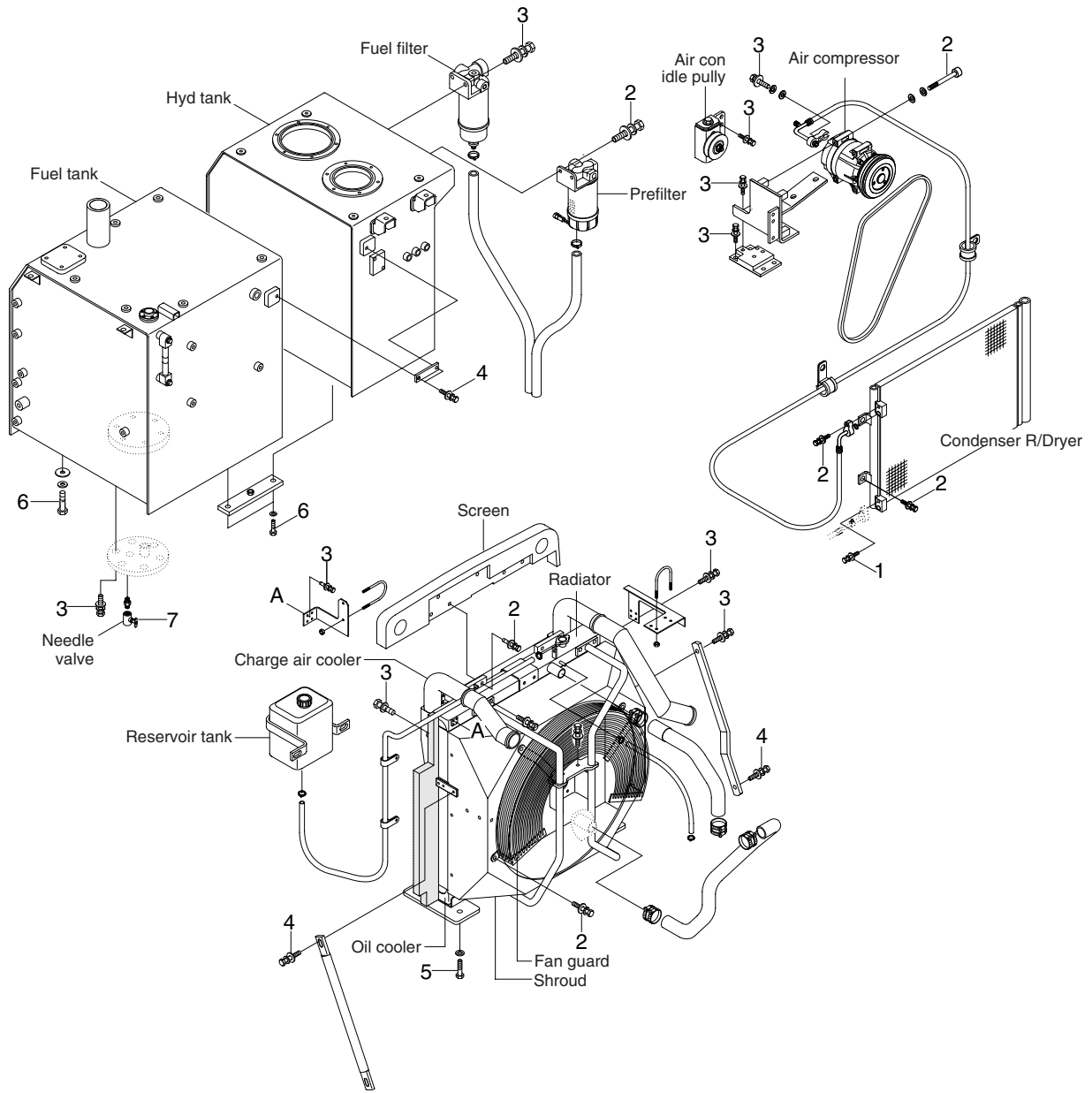


· Tightening torque

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
3	M12×1.75	10.0±2.0	72.3±14.5

Item	Size	kgf · m	lbf · ft
4	M12×1.75	12.8±3.0	92.6±21.7
5	M24×3.0	90±7.0	651±51
-	-	-	-

COOLING SYSTEM AND FUEL TANK MOUNTING



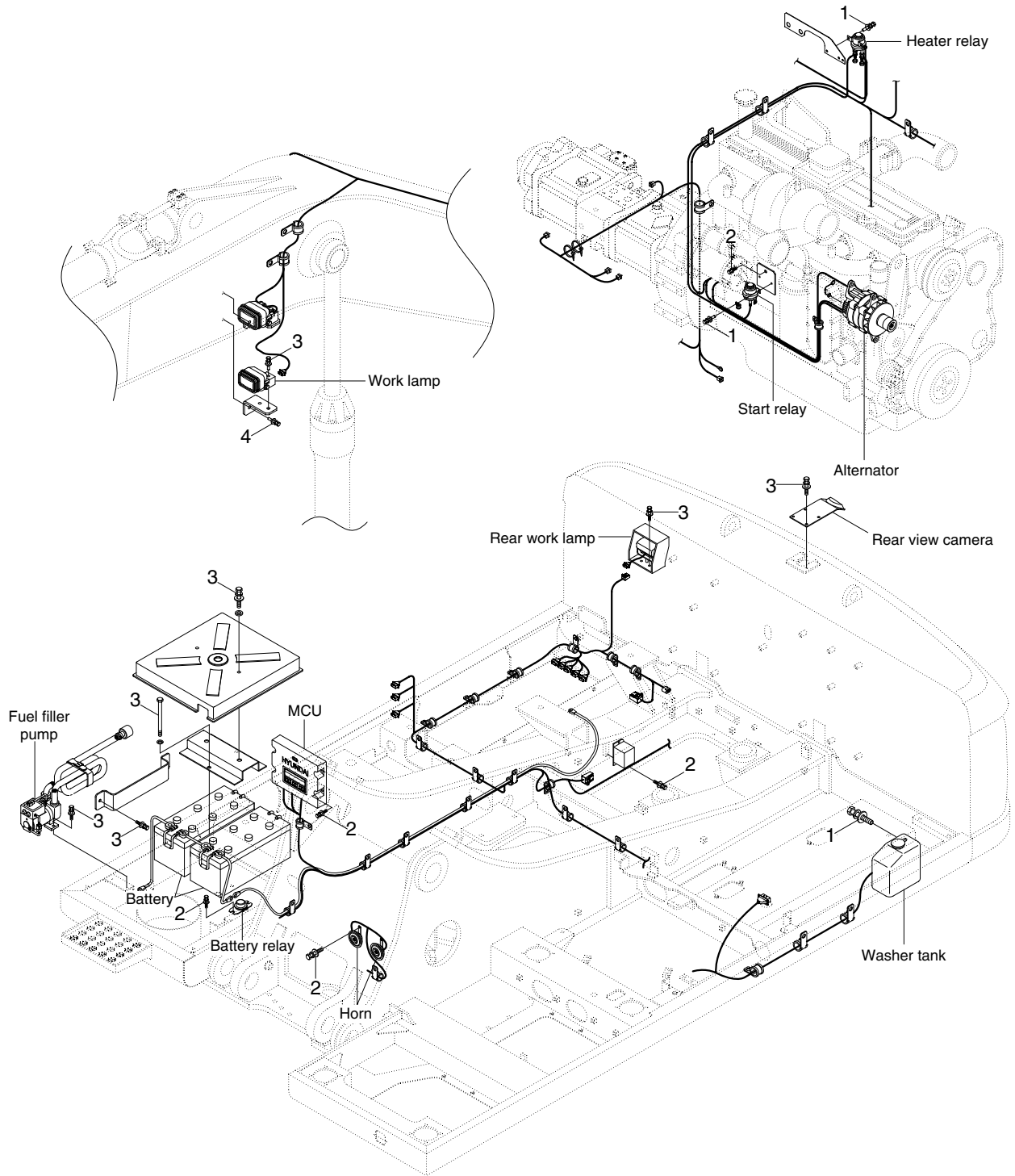
· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 6×1.0	0.5±0.2	3.6±1.45
2	M 8×1.25	2.5±0.5	18.1±3.6
3	M10×1.25	6.9±1.4	49.4±10.1
4	M12×1.75	12.8±3.0	92.6±21.7

Item	Size	kgf · m	lbf · ft
5	M16×2.0	29.7±4.5	215±32.5
6	M20×2.5	46±5.1	333±36.9
7	-	2.3±0.6	16.6±4.3
-	-	-	-

GROUP 3 ELECTRIC SYSTEM

ELECTRIC COMPONENTS MOUNTING 1

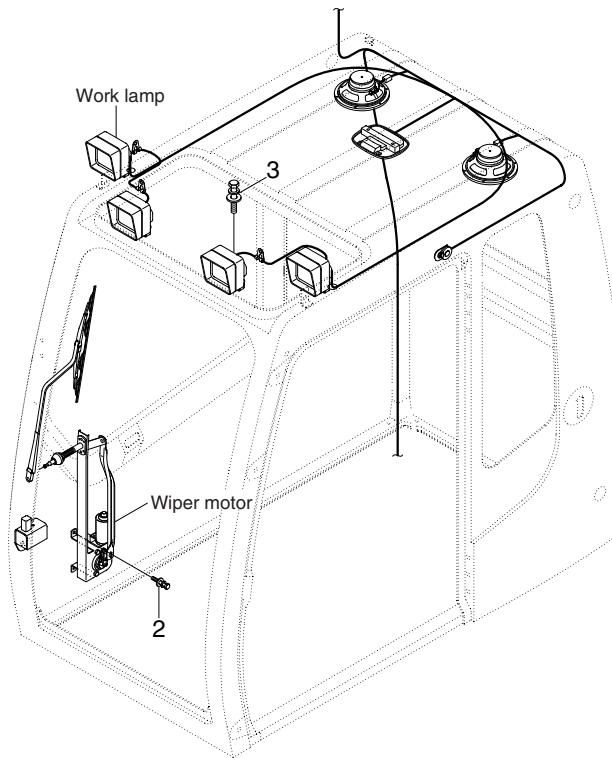


• Tightening torque

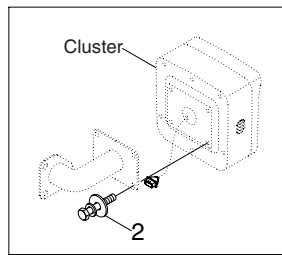
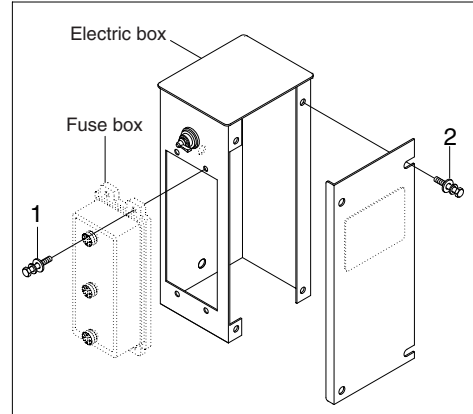
Item	Size	kgf · m	lbf · ft
1	M 6×1.0	1.05±0.2	7.6±1.45
2	M 8×1.25	2.5±0.5	18.1±3.6

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

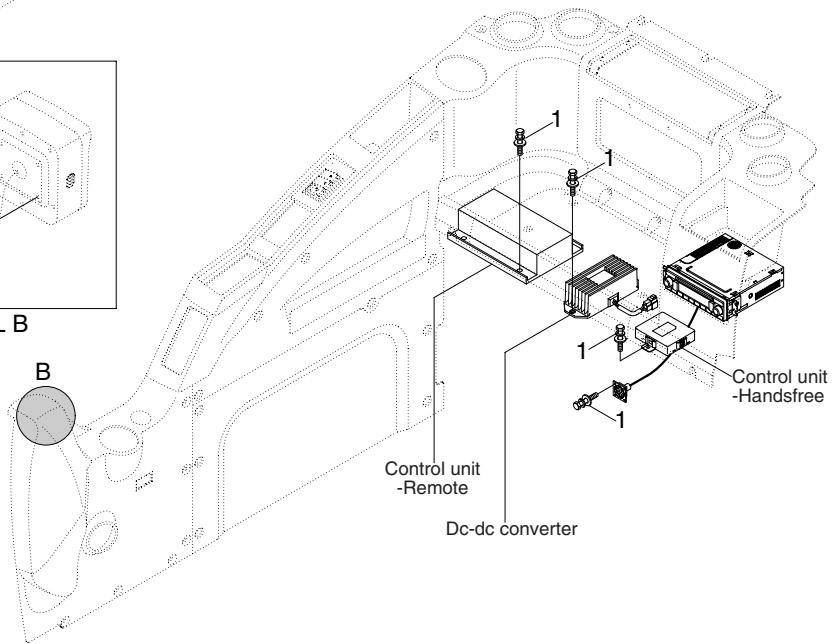
ELECTRIC COMPONENTS MOUNTING 2



VIEW A



DETAIL B



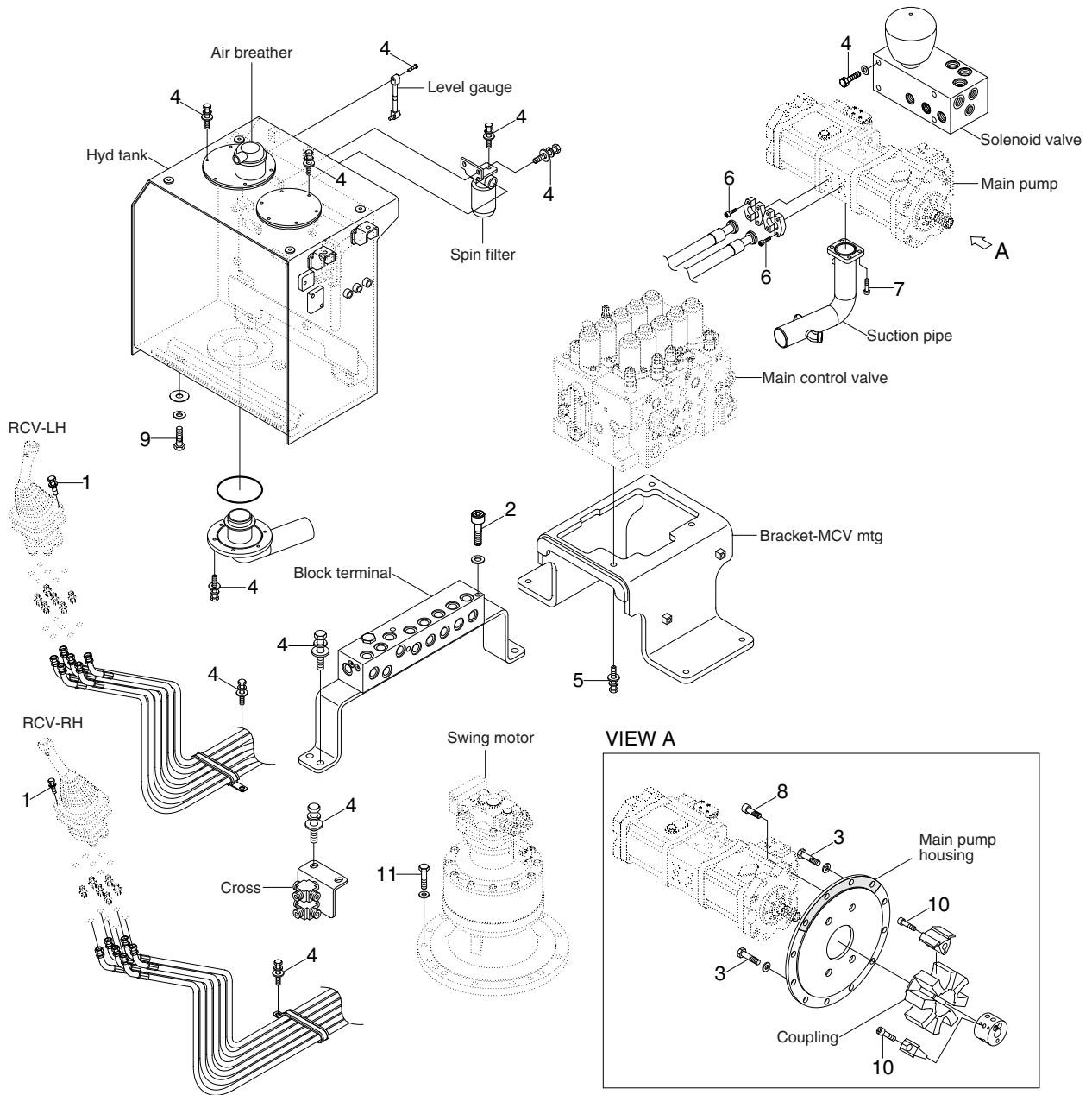
· Tightening torque

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

HYDRAULIC COMPONENTS MOUNTING 1



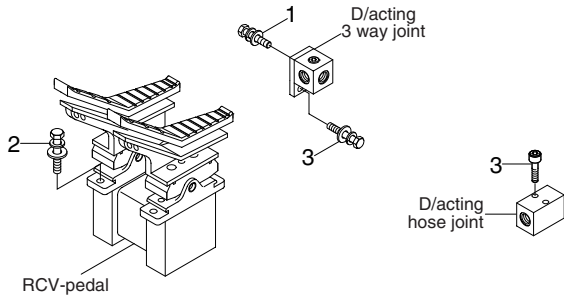
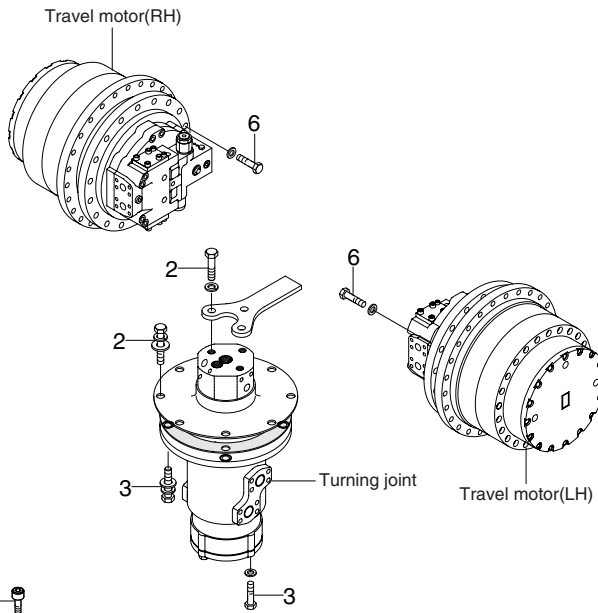
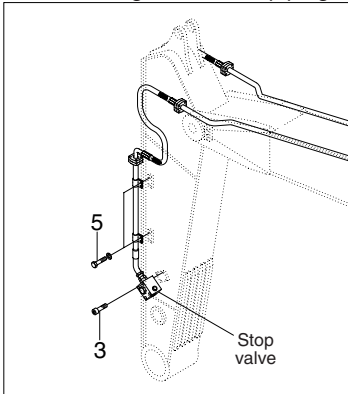
· Tightening torque

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	5.3±0.5	38.3±3.6
4	M10×1.5	6.9±1.4	49.9±10.1
5	M12×1.75	12.3±1.3	88.9±9.4
6	M12×1.75	12.3±1.3	92.5±21.6

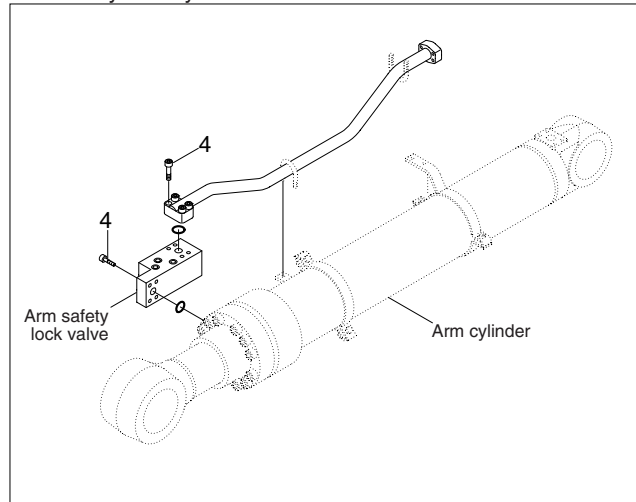
Item	Size	kgf · m	lbf · ft
7	M16×2.0	29.7±4.5	215±32.5
8	M20×2.5	42±4.5	304±32.5
9	M20×2.5	46±5.1	333±36.9
10	M20×2.5	46.5±2.5	336±18.1
11	M20×2.5	58.4±6.4	422±46.2
-	-	-	-

HYDRAULIC COMPONENTS MOUNTING 2

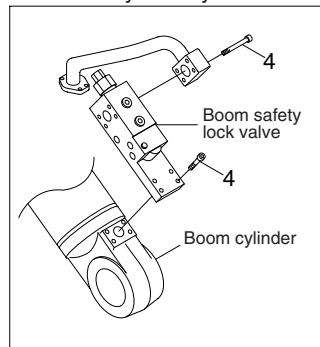
Double acting attachment piping



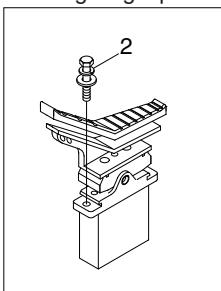
Arm safety lock system



Boom safety lock system



D/acting single pedal

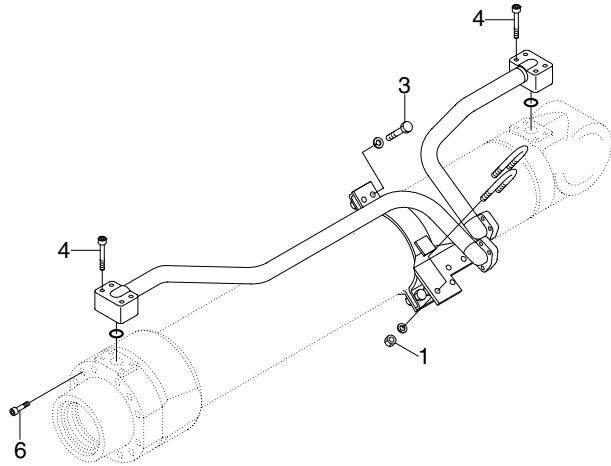


· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 8 × 1.25	4.05 ± 0.8	29.3 ± 5.8
2	M10 × 1.5	6.9 ± 1.4	49.9 ± 10.1
3	M12 × 1.75	12.3 ± 1.3	88.9 ± 9.4

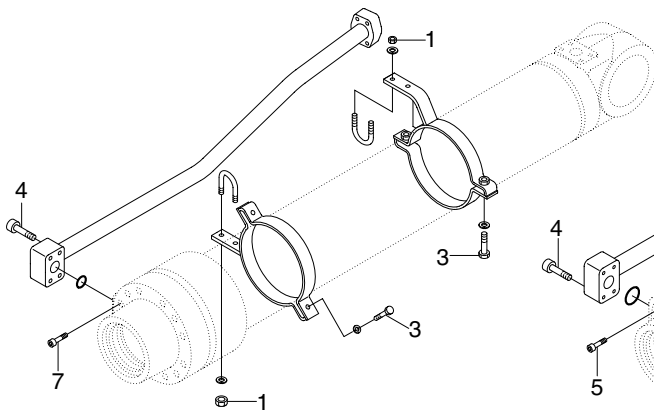
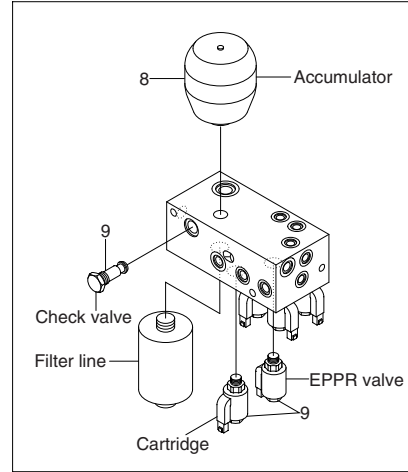
Item	Size	kgf · m	lbf · ft
4	M12 × 1.75	12.8 ± 3.0	92.6 ± 21.7
5	M16 × 2.0	29.7 ± 4.5	215 ± 32.5
6	M24 × 3.0	84 ± 8.0	608 ± 32.5

HYDRAULIC COMPONENTS MOUNTING 3

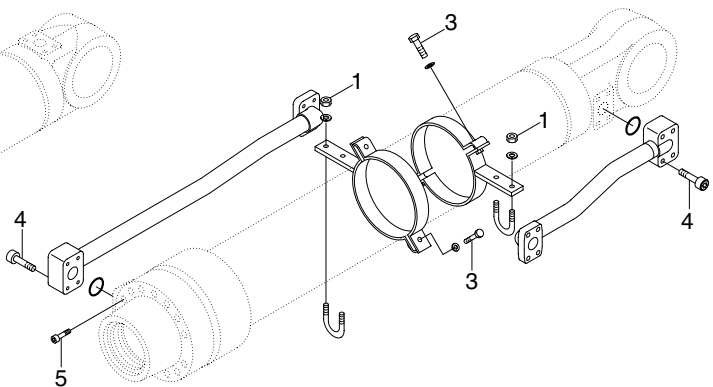


BOOM CYLINDER

Solenoid valve



ARM CYLINDER



BUCKET CYLINDER

· Tightening torque

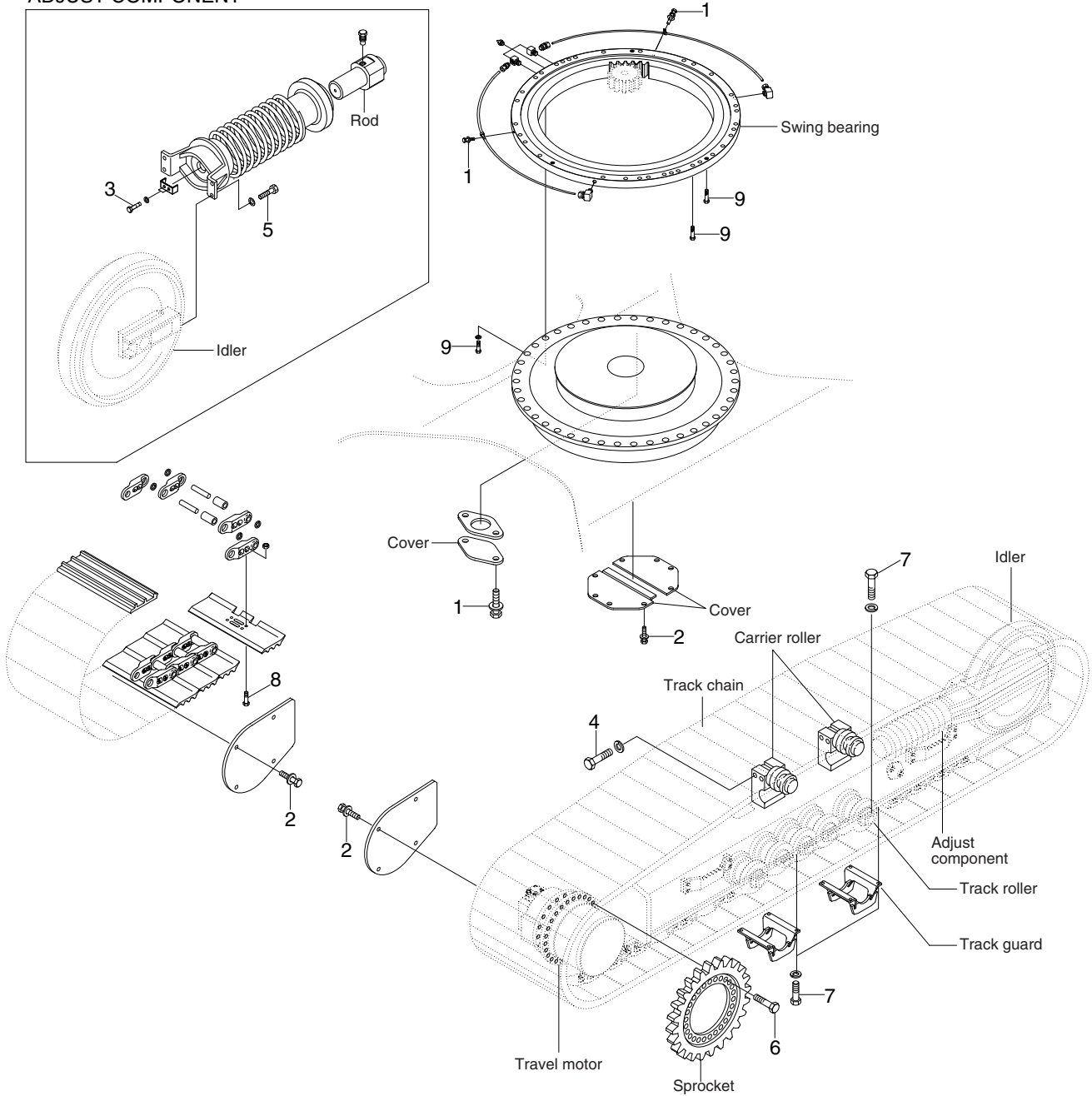
Item	Size	kgf · m	lbf · ft
1	M10×1.5	3.2±0.3	23.1±2.2
2	M10×1.5	5.4±0.5	29.1±3.6
3	M12×1.75	5.5±0.6	39.8±4.3
4	M12×1.75	9.4±1.0	68.0±7.2
5	M18×2.5	32±3.0	232±21.7

Item	Size	kgf · m	lbf · ft
6	M20×2.5	46±5.0	333±36.2
7	M22×2.5	63±6.0	456±43.4
8	M22×2.5	4.1	29.6
9	M27×3.0	5.1	36.9
-	-	-	-

GROUP 5 UNDERCARRIAGE

UNDERCARRIAGE MOUNTING

ADJUST COMPONENT



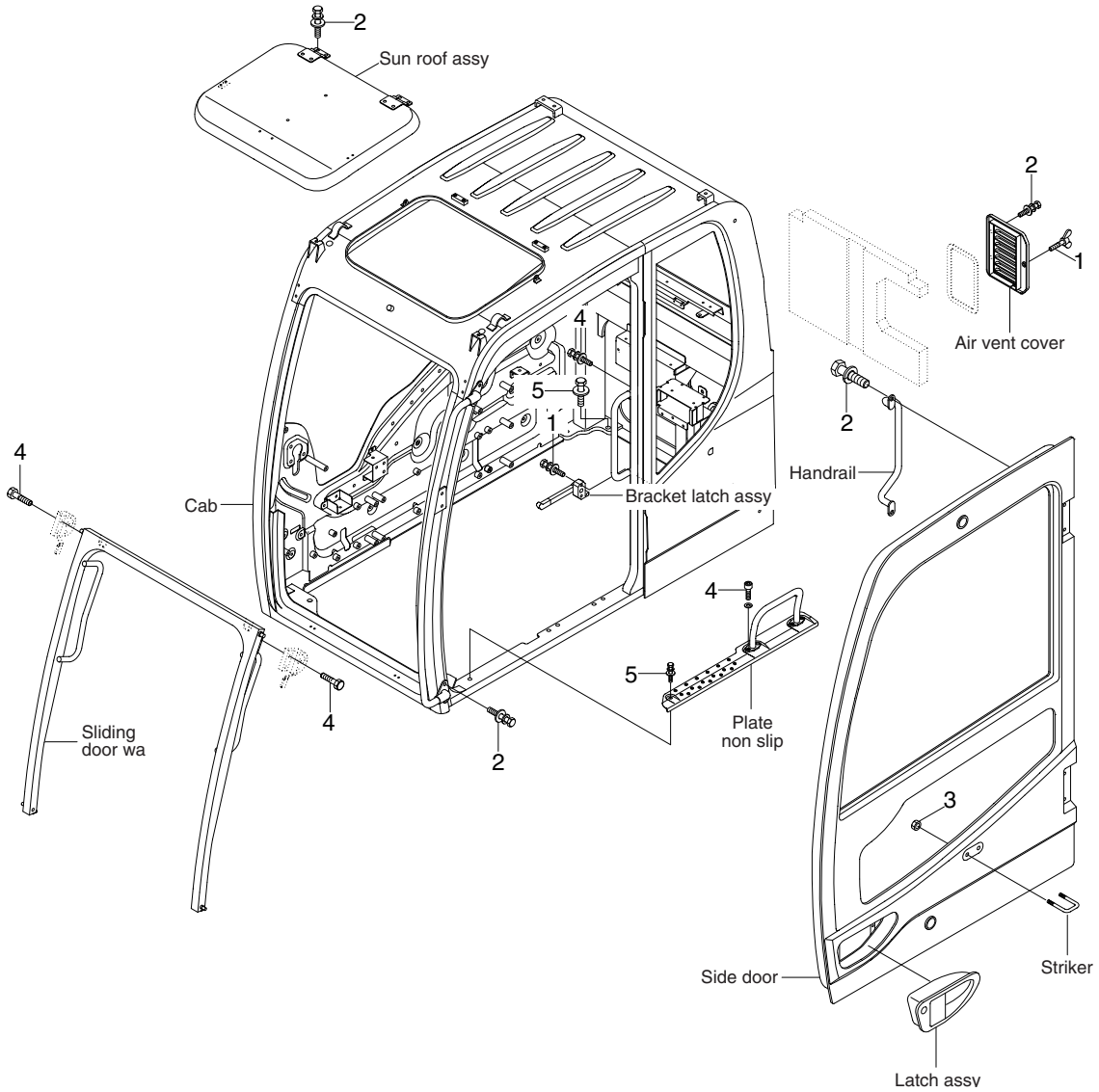
· Tightening torque

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	M12×1.75	15±0.5	108±3.6
4	M16×2.0	29.7±4.5	215±32.5
5	M16×1.5	31.3±4.7	226±34

Item	Size	kgf · m	lbf · ft
6	M20×2.5	57±6.0	412±43.3
7	M20×2.5	57.9±8.6	419±62.2
8	M22×1.5	115±5.0	831±36
9	M24×3.0	97.8±10	707±72.3
-	-	-	-

GROUP 6 STRUCTURE

CAB AND ACCESSORIES MOUNTING

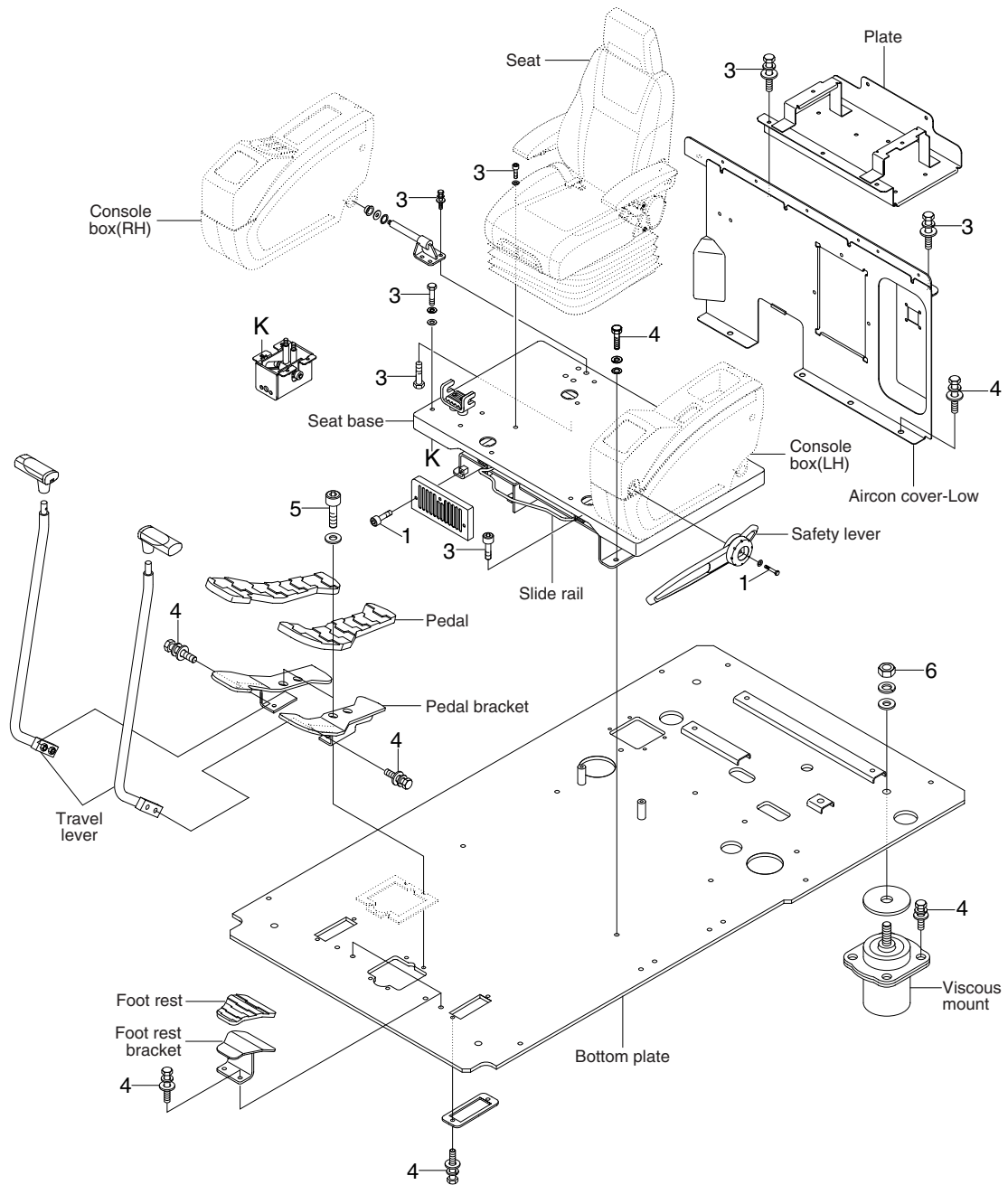


· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 6×1.0	0.49±0.1	3.5±0.7
2	M 8×1.25	2.5±0.5	18.1±3.6
3	M10×1.5	4.7±0.9	34±6.5

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

CAB INTERIOR MOUNTING

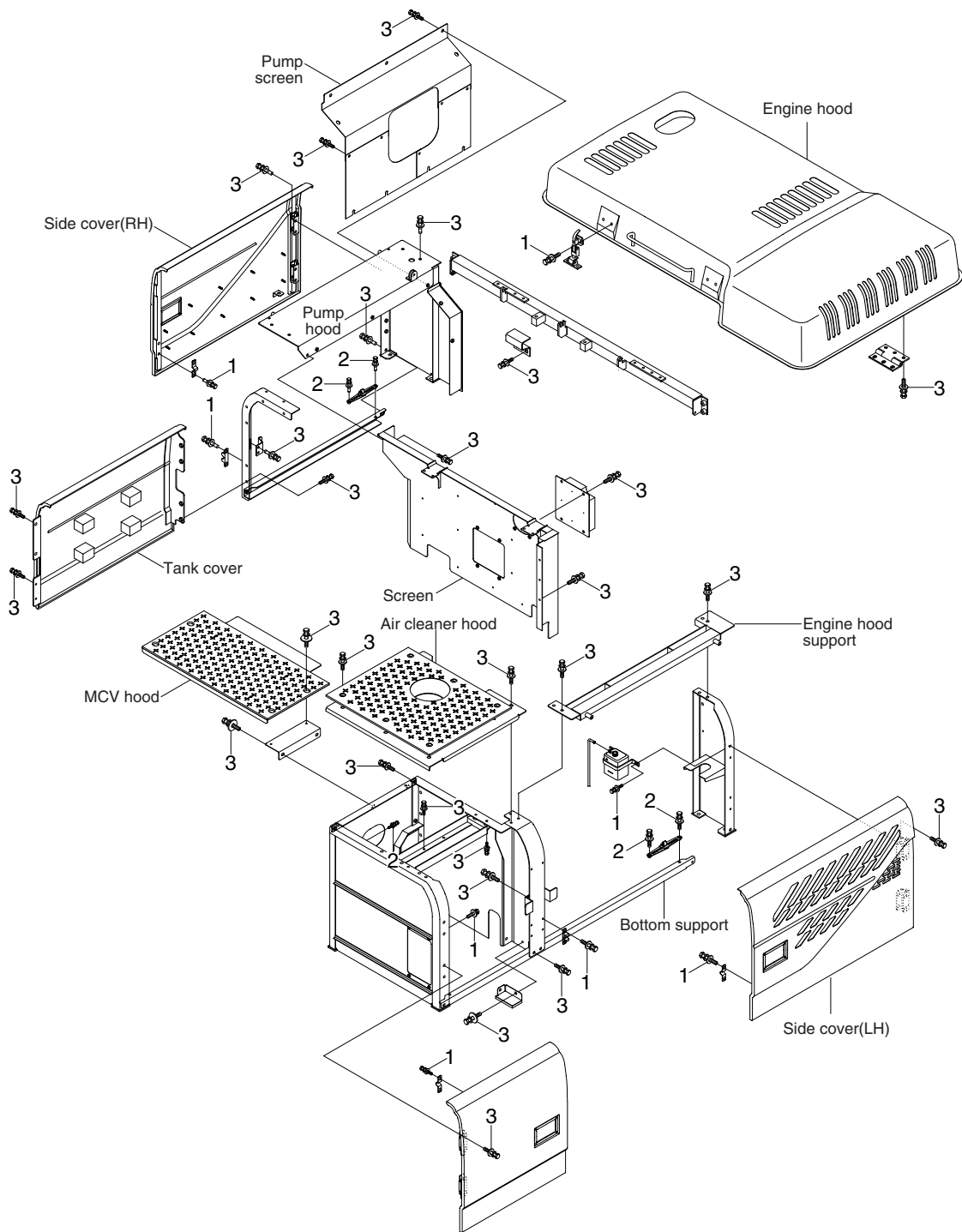


· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M 6×1.0	0.49±0.1	3.5±0.7
2	M 8×1.25	4.05±0.8	29.3±5.8
3	M 8×1.25	2.5±0.5	18.1±3.6

Item	Size	kgf · m	lbf · ft
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	M16×2.0	29.7±4.5	215±32.5

COWLING MOUNTING

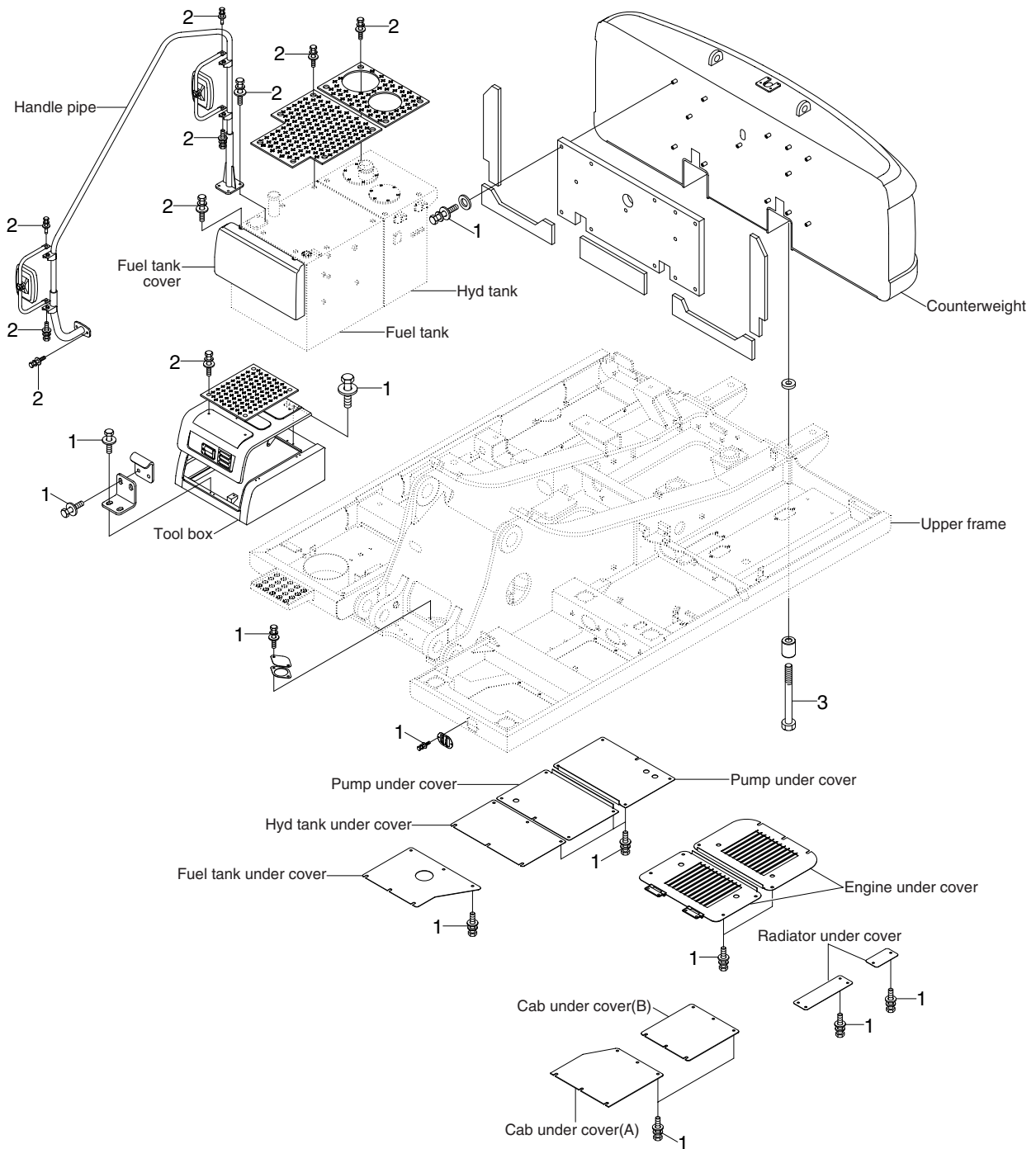


· Tightening torque

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	M16×2.0	29.7±4.5	215±32.5

COUNTERWEIGHT AND COVERS MOUNTING

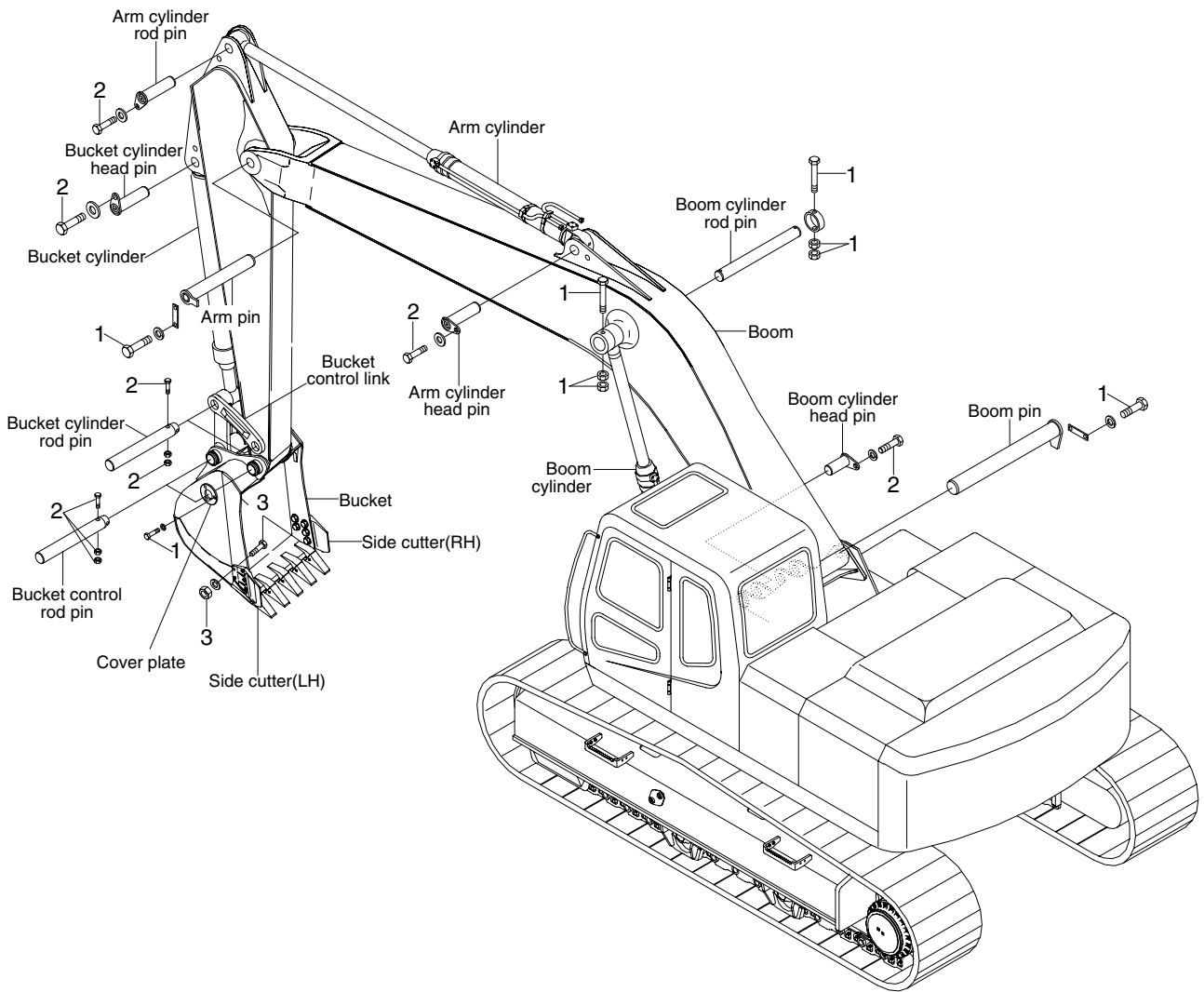


· Tightening torque

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

Item	Size	kgf · m	lbf · ft
3	M36×3.0	308±46	2228±333
-	-	-	-

GROUP 7 WORK EQUIPMENT



· Tightening torque

Item	Size	kgf · m	lbf · ft
1	M16×2.0	29.7±4.5	215±32.5
2	M20×2.5	57.9±8.7	419±62.9

Item	Size	kgf · m	lbf · ft
3	M22×2.5	81.9±16.1	592±116
-	-	-	-