

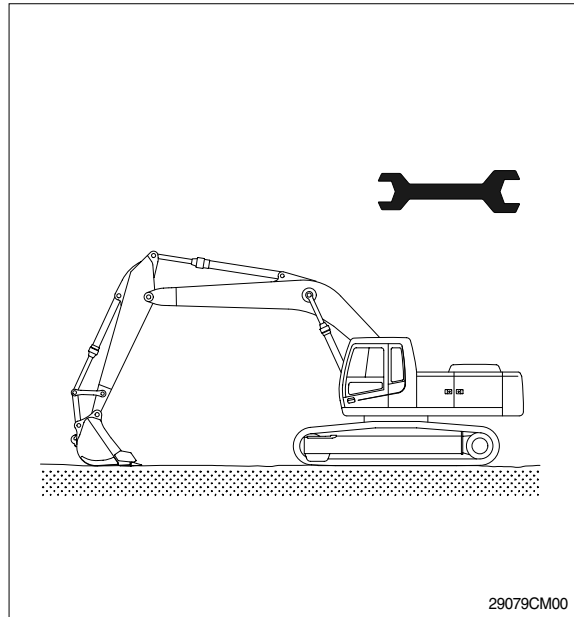
SECTION 9 COMPONENT MOUNTING TORQUE

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SECTION 9 COMPONENT MOUNTING TORQUE

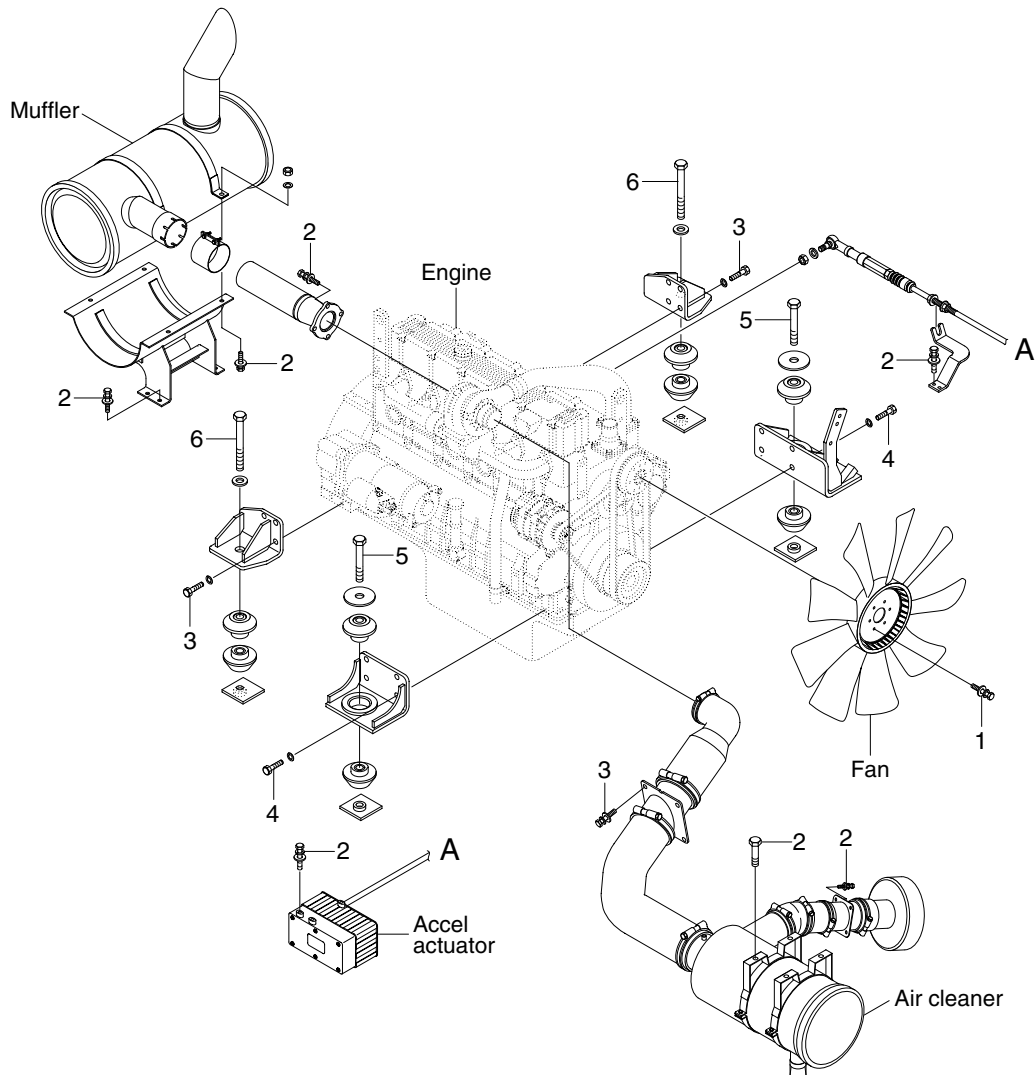
GROUP 1 INTRODUCTION GUIDE

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



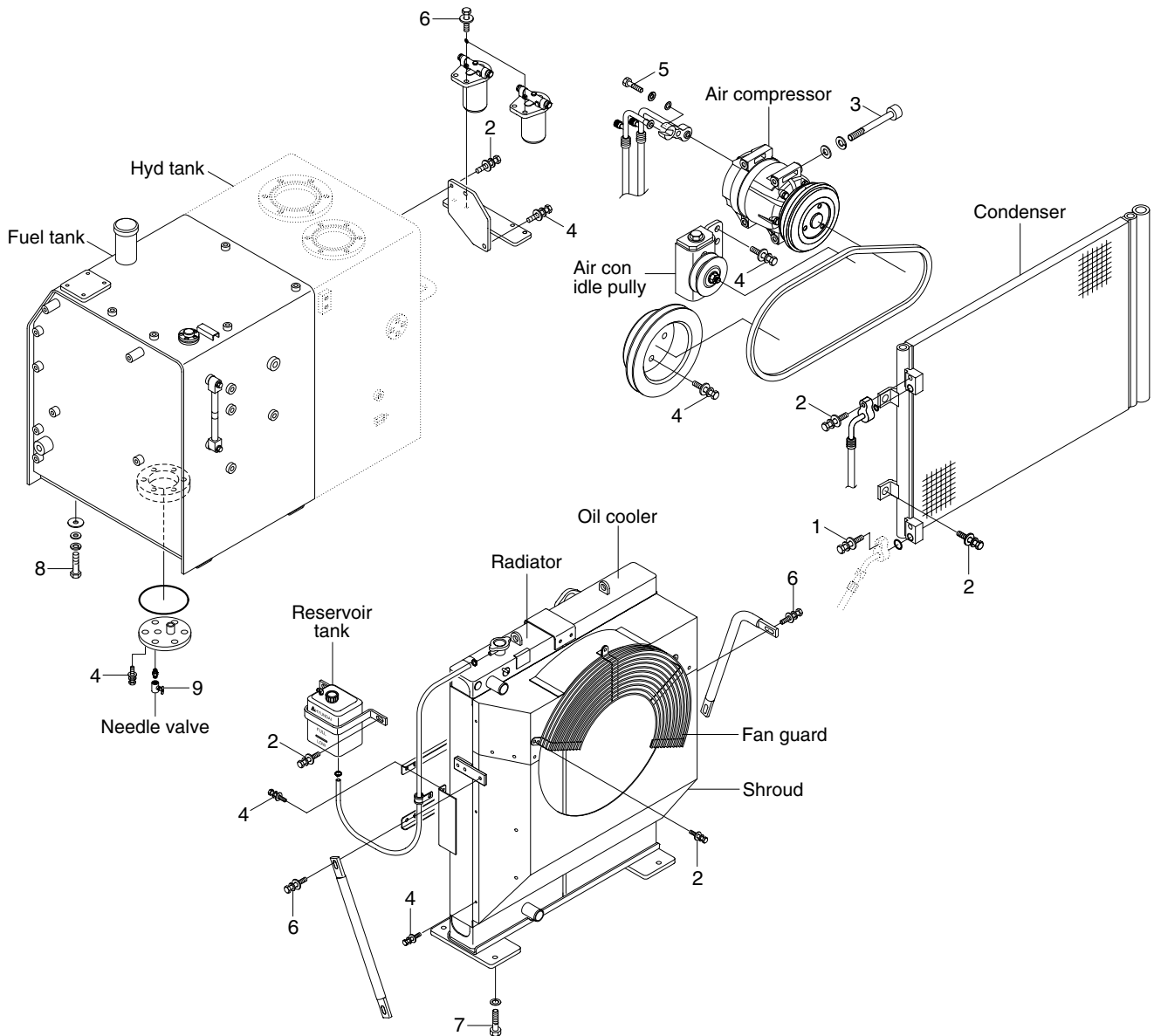
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· Tightening torque

| 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 | M12×1.75 | 12.8±3.0 | 92.6±21.7 |

| Item | Size | kgf · m | lbf · ft |
|------|---------|----------|----------|
| 4 | M14×2.0 | 19.6±2.9 | 142±21.0 |
| 5 | M20×2.5 | 55±3.5 | 398±25.3 |
| 6 | M24×3.0 | 97±7.0 | 702±51 |

COOLING SYSTEM AND FUEL TANK MOUNTING



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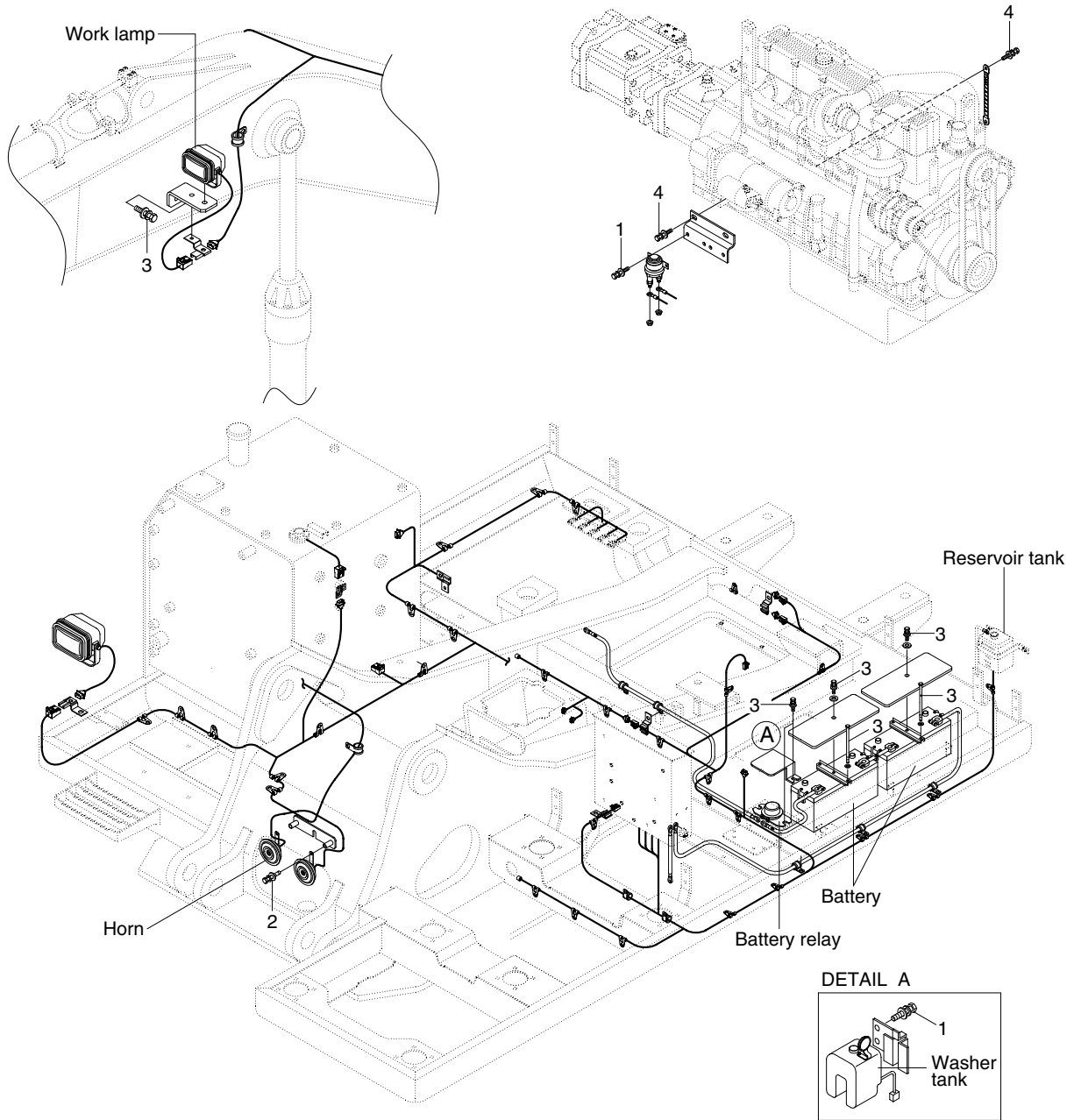
· Tightening torque

| 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 | 45±5.1 | 325±36.9 |
| 9 | - | 2.3±0.6 | 16.6±4.3 |
| - | - | - | - |

GROUP 3 ELECTRIC SYSTEM

ELECTRIC COMPONENTS MOUNTING 1



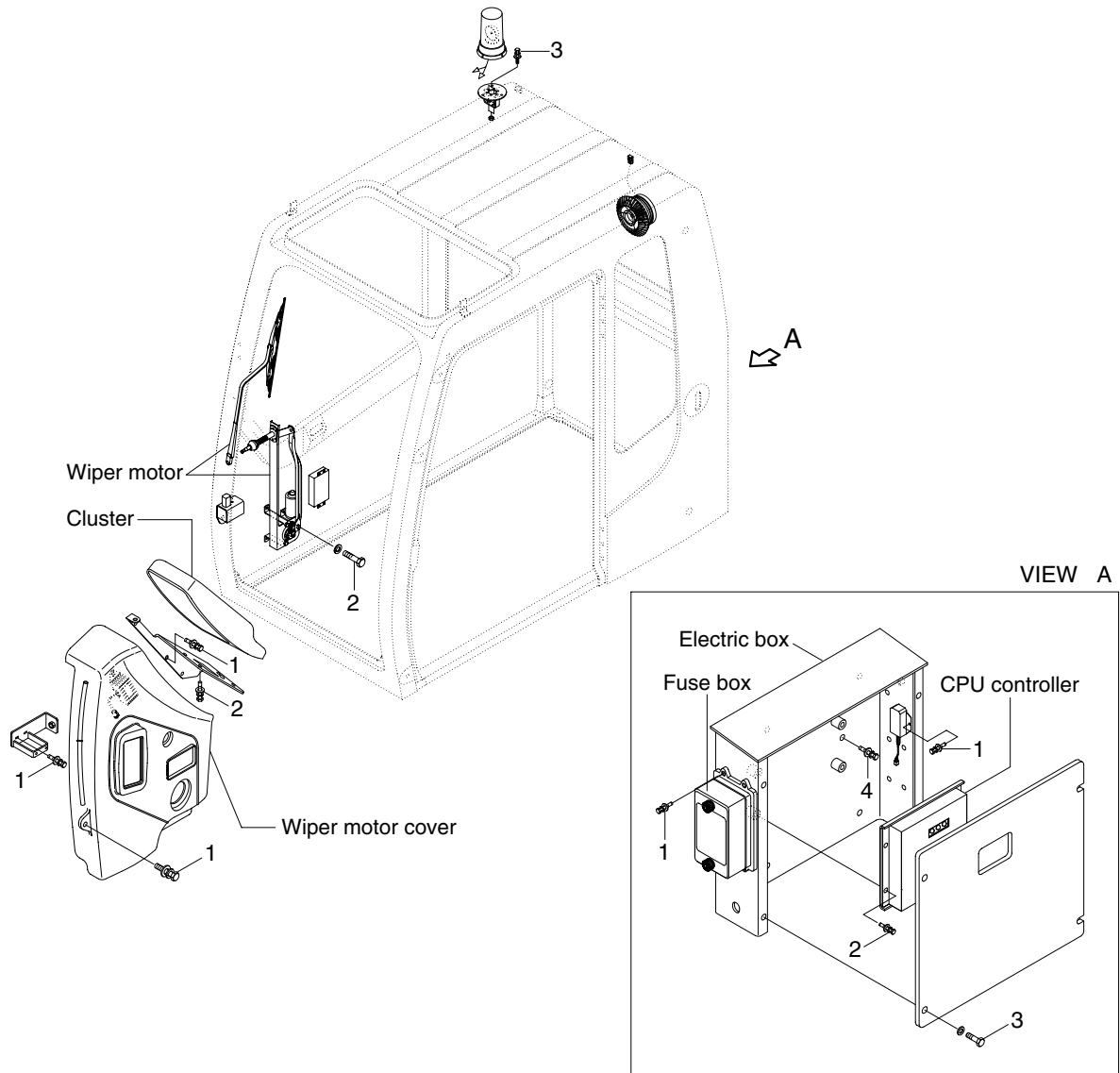
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· Tightening torque

| 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 |

ELECTRIC COMPONENTS MOUNTING 2



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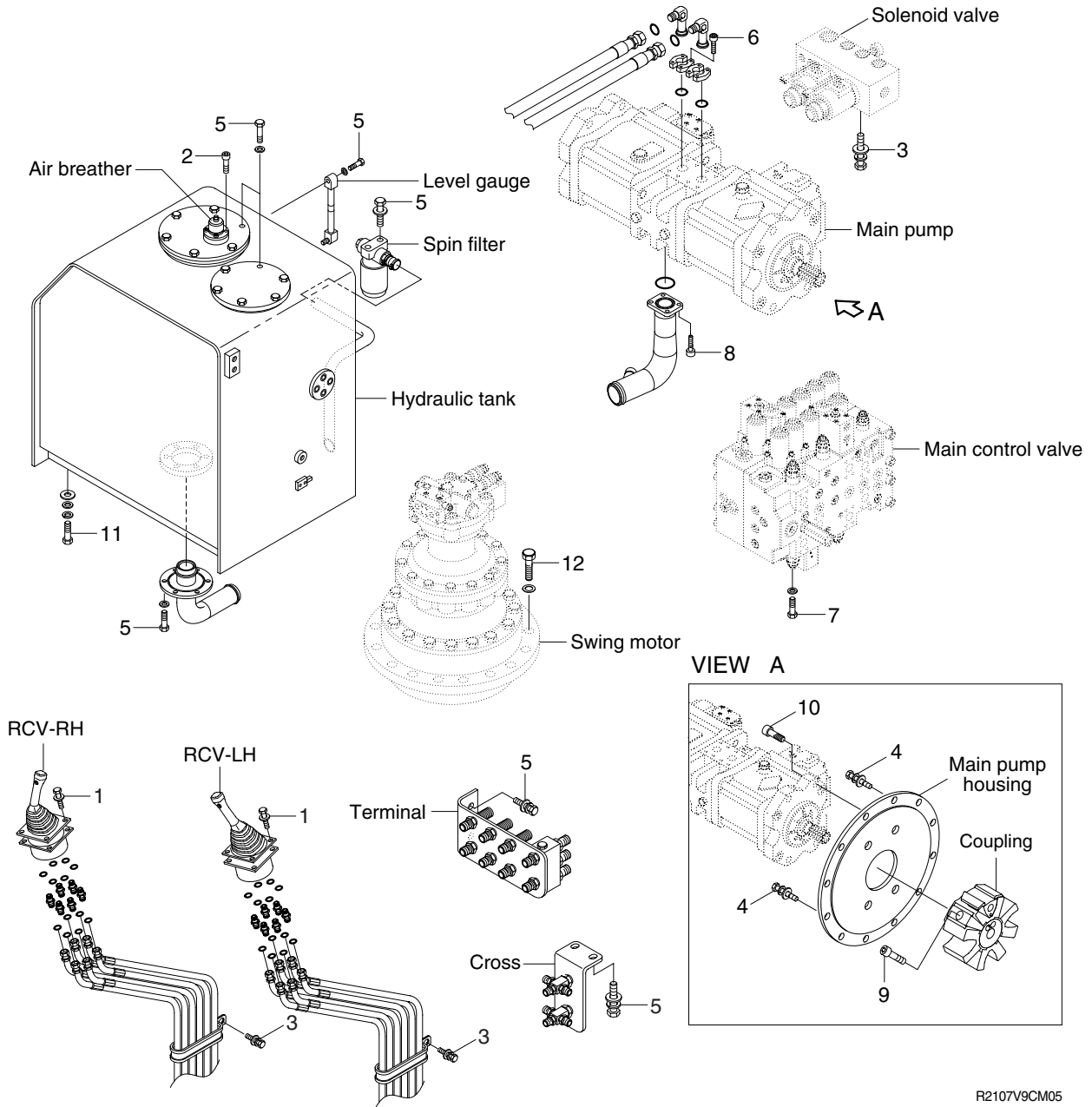
· Tightening torque

| 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

HYDRAULIC COMPONENTS MOUNTING 1



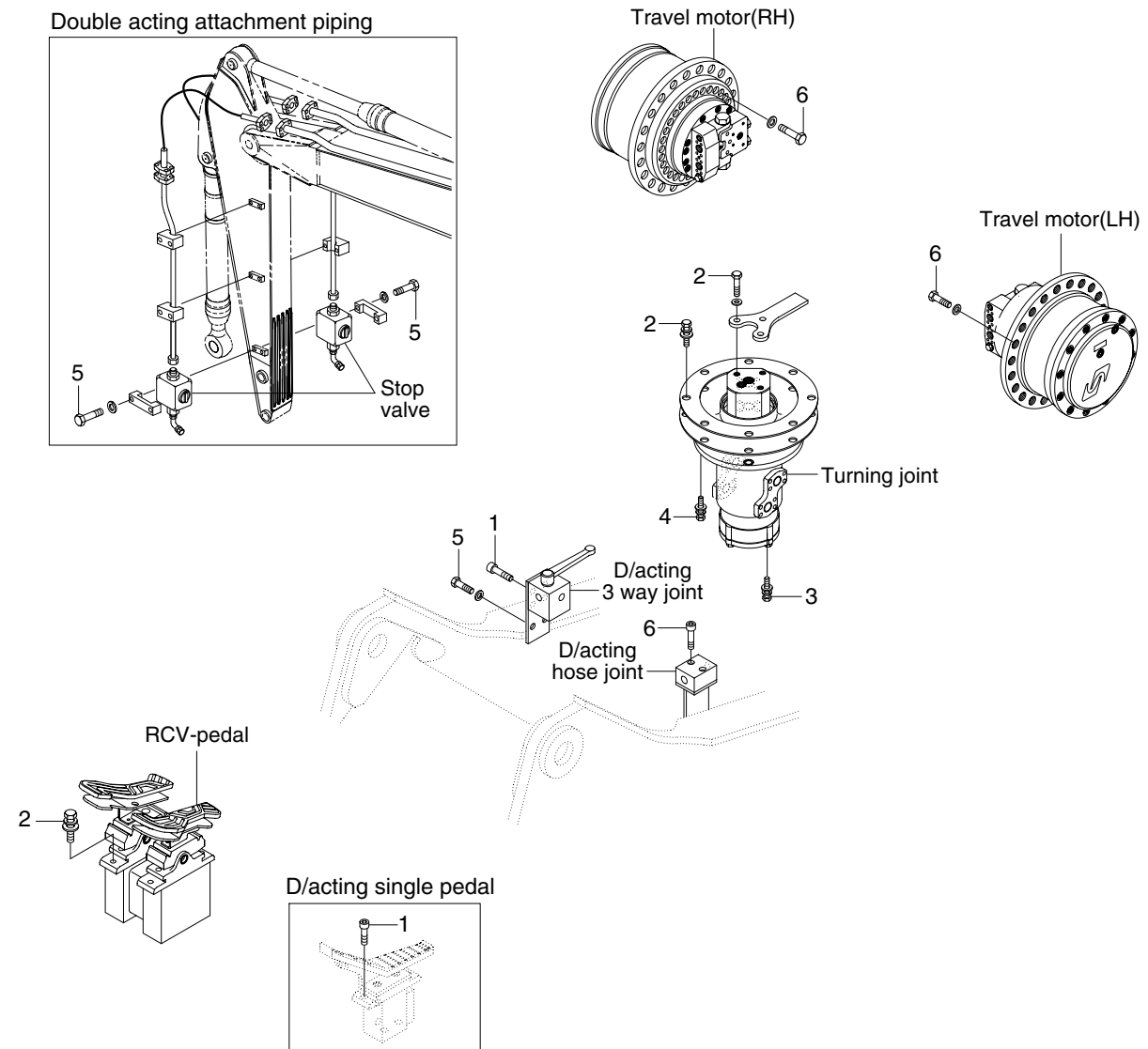
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· Tightening torque

| Item | Size | kgf · m | lbf · ft |
|------|----------|----------|-----------|
| 1 | M 6×1.0 | 1.05±0.2 | 7.6±1.45 |
| 2 | M 6×1.0 | 1.44±0.3 | 10.4±2.2 |
| 3 | M 8×1.25 | 2.5±0.5 | 18.1±3.6 |
| 4 | M10×1.5 | 4.8±0.3 | 34.7±2.2 |
| 5 | M10×1.5 | 6.9±1.4 | 49.9±10.1 |
| 6 | M10×1.5 | 8.27±1.7 | 59.8±12.3 |

| Item | Size | kgf · m | lbf · ft |
|------|----------|----------|----------|
| 7 | M12×1.75 | 12.2±1.3 | 88.2±9.4 |
| 8 | M12×1.75 | 14.7±2.2 | 106±15.9 |
| 9 | M18×2.5 | 32±1.0 | 231±7.2 |
| 10 | M20×2.5 | 42±4.5 | 304±32.5 |
| 11 | M20×2.5 | 45±5.1 | 325±36.9 |
| 12 | M20×2.5 | 57.9±8.7 | 419±62.9 |

HYDRAULIC COMPONENTS MOUNTING 2



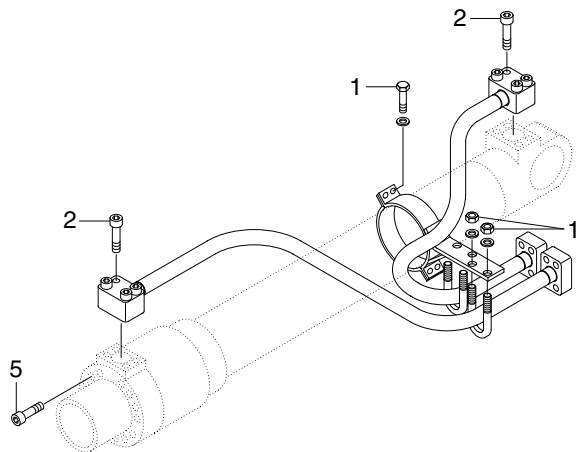
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· Tightening torque

| 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 | 11.25±1.25 | 81.4±9.0 |

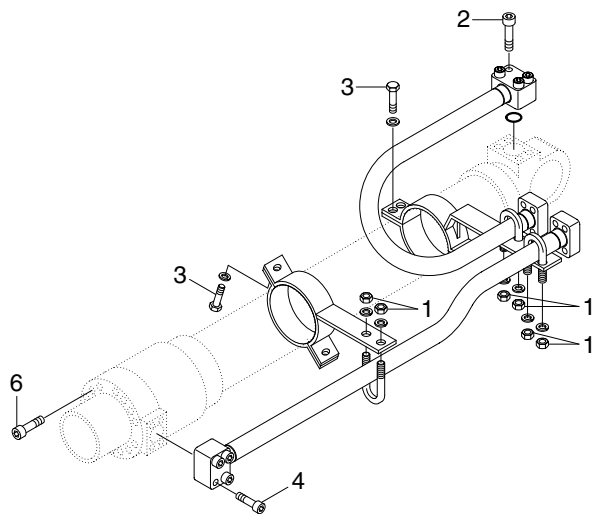
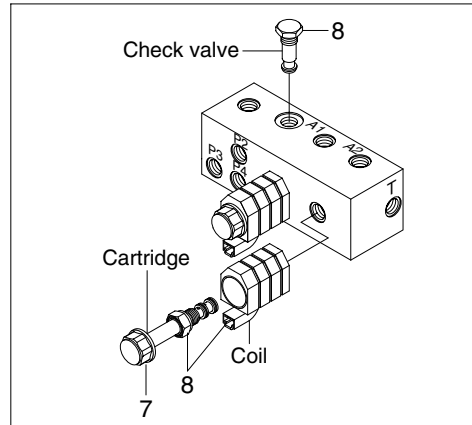
| Item | Size | kgf · m | lbf · ft |
|------|----------|----------|-----------|
| 4 | M12×1.75 | 12.3±1.3 | 88.9±9.4 |
| 5 | M12×1.75 | 12.8±3.0 | 92.6±21.7 |
| 6 | M16×2.0 | 23.0±2.5 | 166±18.1 |

HYDRAULIC COMPONENTS MOUNTING 3

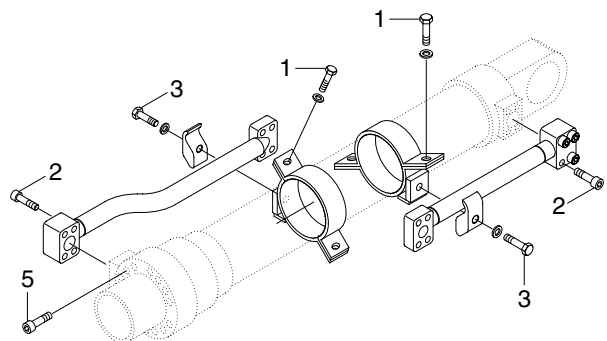


BOOM CYLINDER

Solenoid valve



ARM CYLINDER



BUCKET CYLINDER

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· Tightening torque

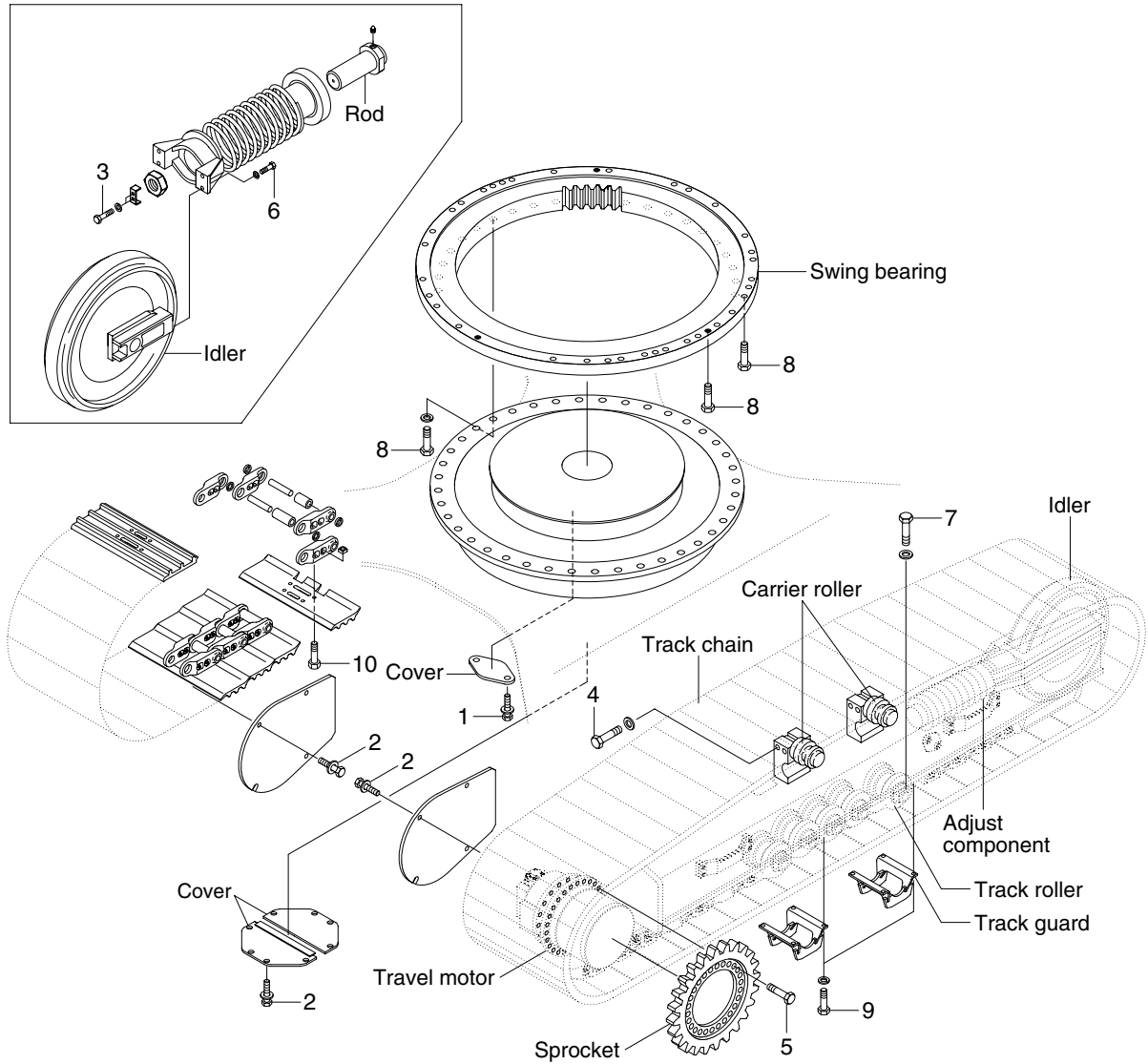
| Item | Size | kgf · m | lbf · ft |
|------|----------|---------|----------|
| 1 | M10×1.5 | 3.2±0.3 | 23.1±2.2 |
| 2 | M10×1.5 | 5.4±0.5 | 39.1±3.6 |
| 3 | M12×1.75 | 5.5±0.6 | 39.8±4.3 |
| 4 | M12×1.75 | 9.4±1.0 | 68.0±7.2 |

| Item | Size | kgf · m | lbf · ft |
|------|---------|---------|----------|
| 5 | M16×2.0 | 23±2.0 | 166±14.5 |
| 6 | M18×2.5 | 32±3.0 | 232±21.7 |
| 7 | - | 0.5±0.1 | 3.6±0.7 |
| 8 | - | 2.8±0.2 | 20.3±1.4 |

GROUP 5 UNDERCARRIAGE

UNDERCARRIAGE MOUNTING

ADJUST COMPONENT



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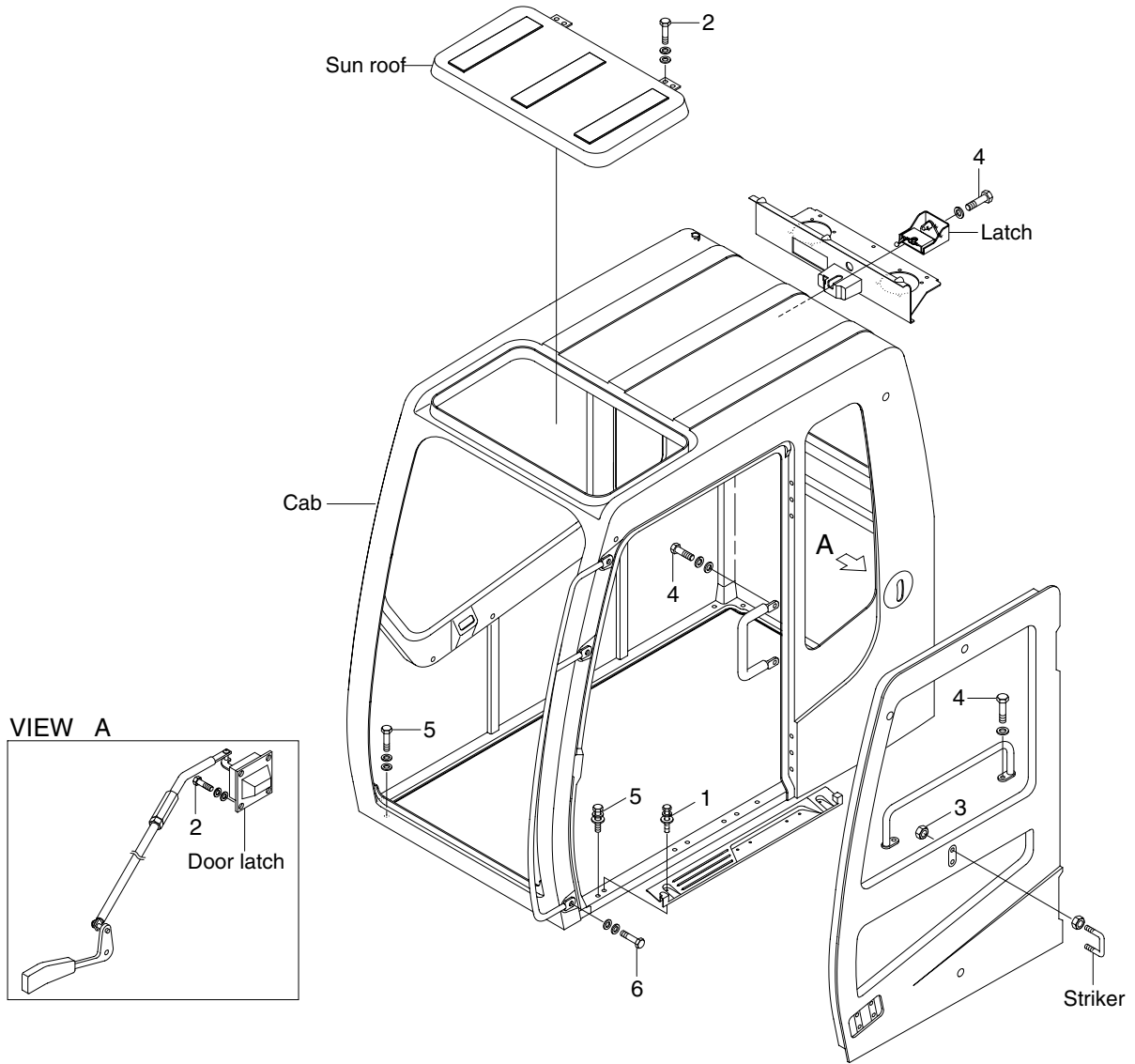
• Tightening torque

| 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 | 23±2.5 | 166±18.1 |
| 5 | M16×2.0 | 26±2.5 | 188±18.1 |

| Item | Size | kgf · m | lbf · ft |
|------|---------|----------|----------|
| 6 | M16×2.0 | 29.7±4.5 | 215±32.5 |
| 7 | M20×2.5 | 54.7±5.0 | 396±36.2 |
| 8 | M20×2.5 | 57.8±6.4 | 418±46.3 |
| 9 | M20×2.5 | 57.9±8.7 | 419±62.9 |
| 10 | M20×2.5 | 78±8.0 | 564±57.9 |

GROUP 6 STRUCTURE

CAB AND ACCESSORIES MOUNTING



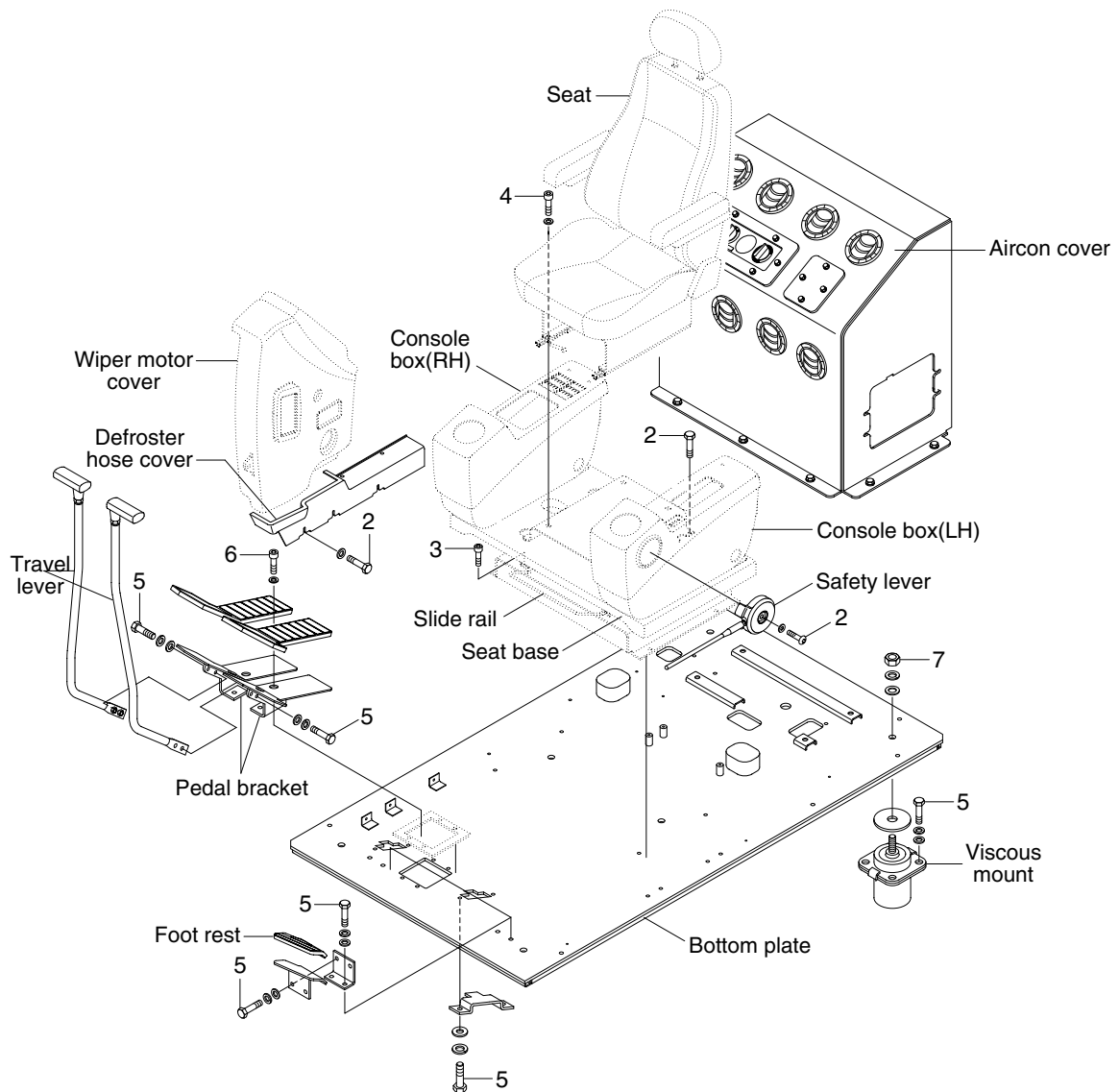
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· Tightening torque

| 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 |
| 6 | M16×2.0 | 29.7±4.5 | 215±32.5 |

CAB INTERIOR MOUNTING



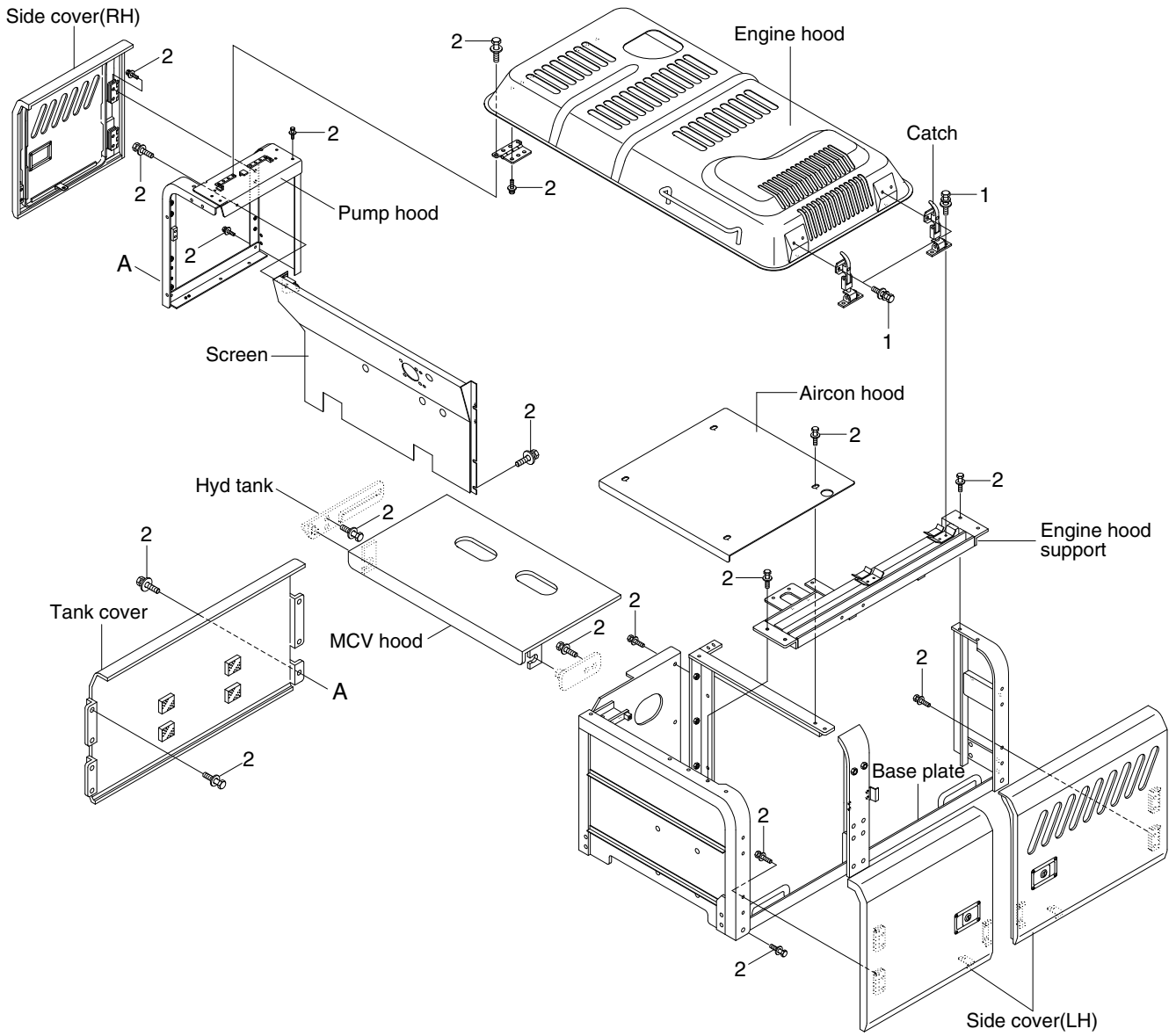
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· Tightening torque

| Item | Size | kgf · m | lbf · ft |
|------|----------|----------|----------|
| 1 | M 6×1.0 | 0.49±0.1 | 3.5±0.7 |
| 2 | M 6×1.0 | 1.05±0.2 | 7.6±1.4 |
| 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 |

| Item | Size | kgf · m | lbf · ft |
|------|---------|----------|-----------|
| 5 | M10×1.5 | 6.9±1.4 | 49.9±10.1 |
| 6 | M10×1.5 | 8.27±1.7 | 59.8±12.3 |
| 7 | M16×2.0 | 29.7±4.5 | 215±32.5 |
| - | - | - | - |

COWLING MOUNTING

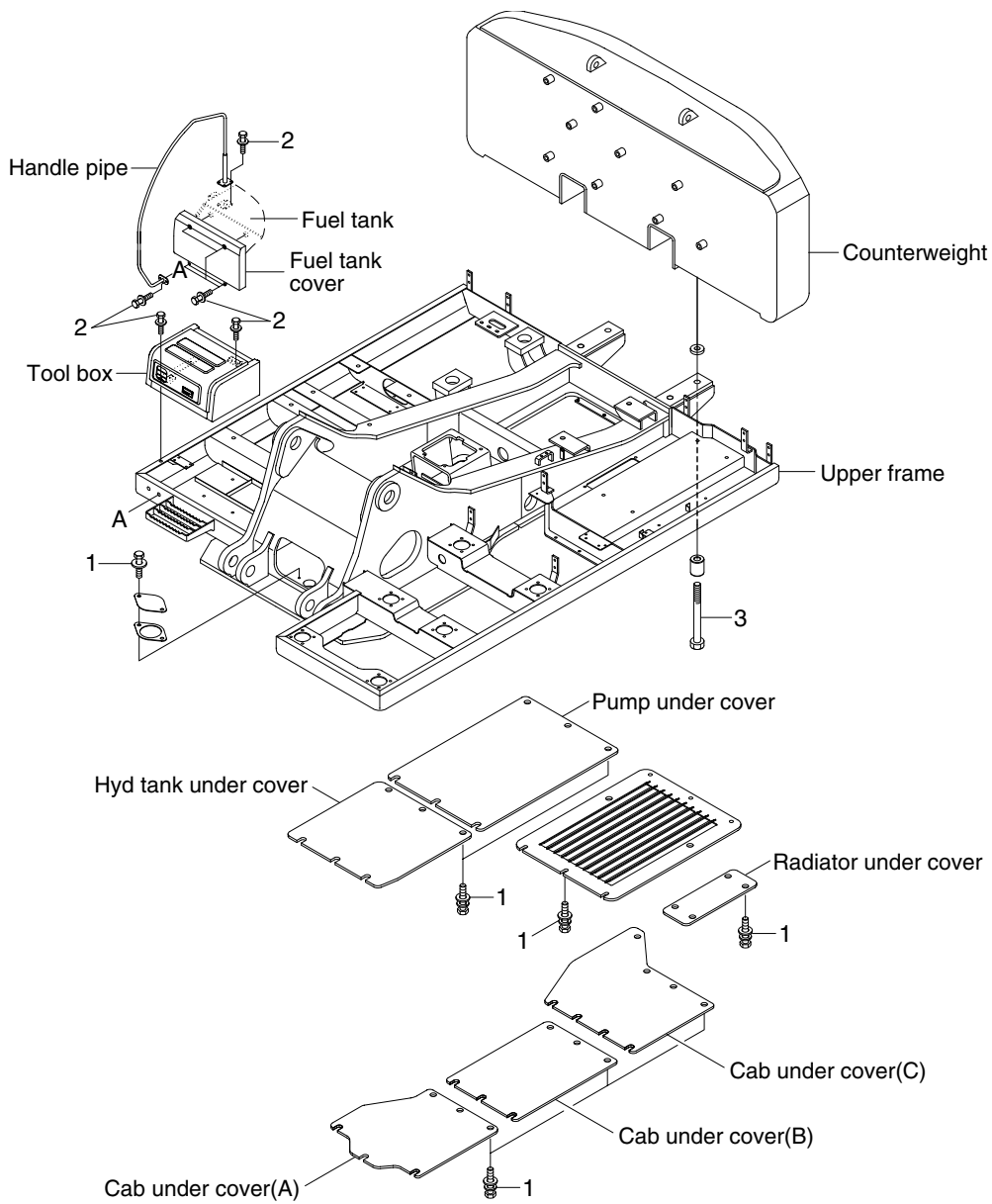


R2107V9CM11

· Tightening torque

| Item | Size | kgf · m | lbf · ft |
|------|----------|----------|-----------|
| 1 | M 8×1.25 | 2.5±0.5 | 18.1±3.6 |
| 2 | M12×1.75 | 12.8±3.0 | 92.6±21.7 |

COUNTERWEIGHT AND COVERS MOUNTING



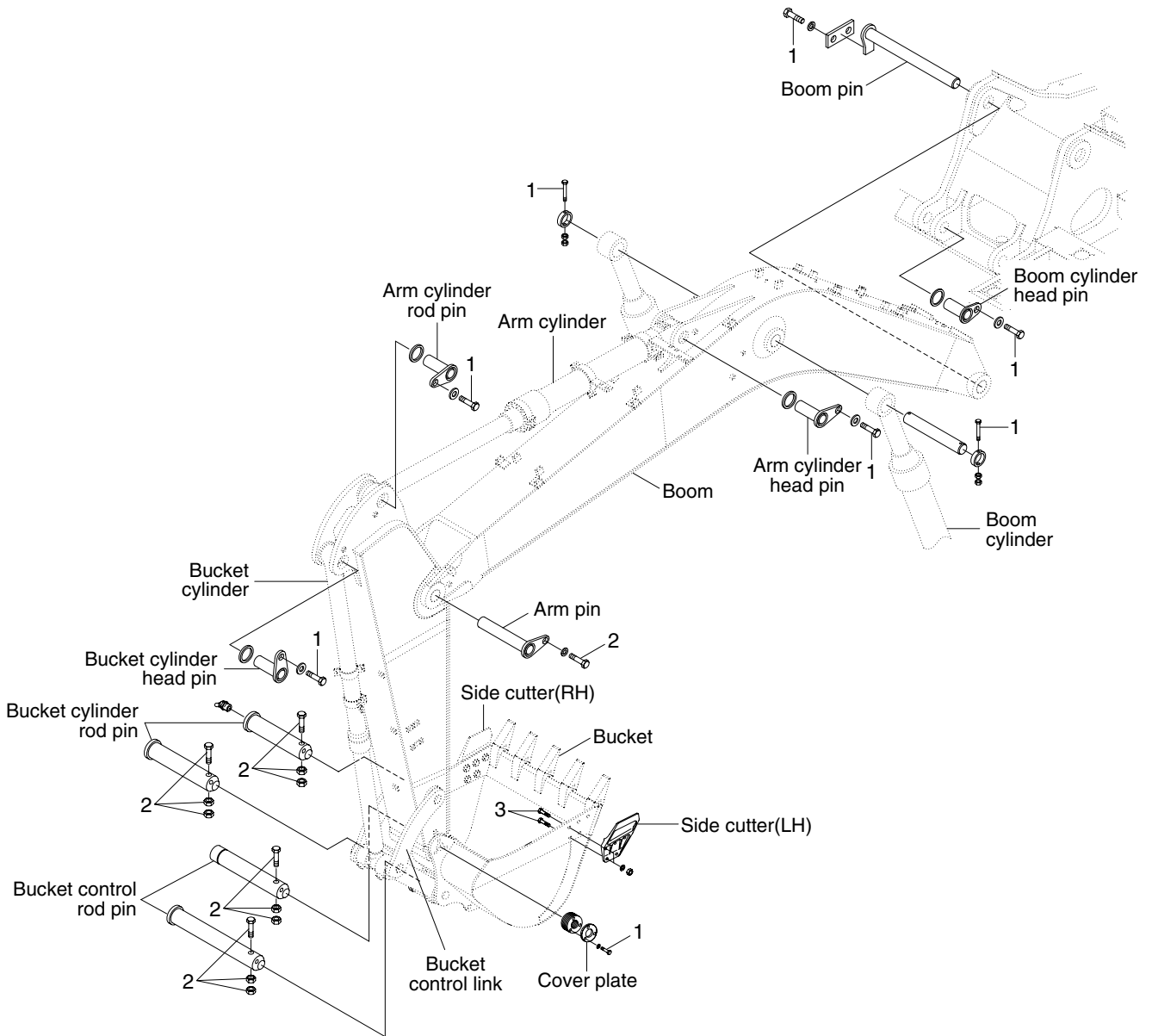
R2107V9CM12

· 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



2107V9CM13

· 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 | 55.8±7.5 | 404±54.2 |
| - | - | - | - |