

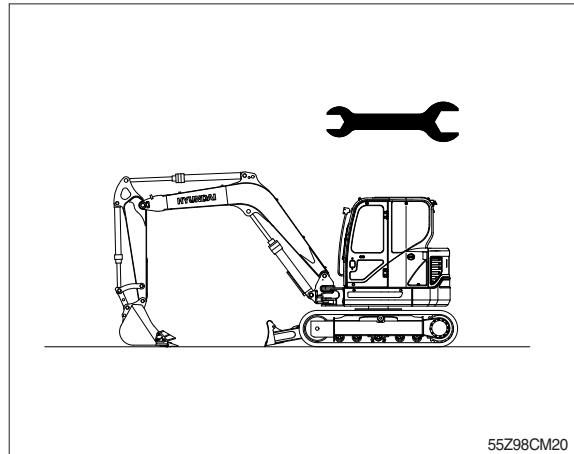
SECTION 8 COMPONENT MOUNTING TORQUE

Group 1	Introduction guide	8-1
Group 2	Engine system	8-2
Group 3	Electric system	8-4
Group 4	Hydraulic system	8-5
Group 5	Undercarriage	8-7
Group 6	Structure	8-8
Group 7	Work equipment	8-10

SECTION 8 COMPONENT MOUNTING TORQUE

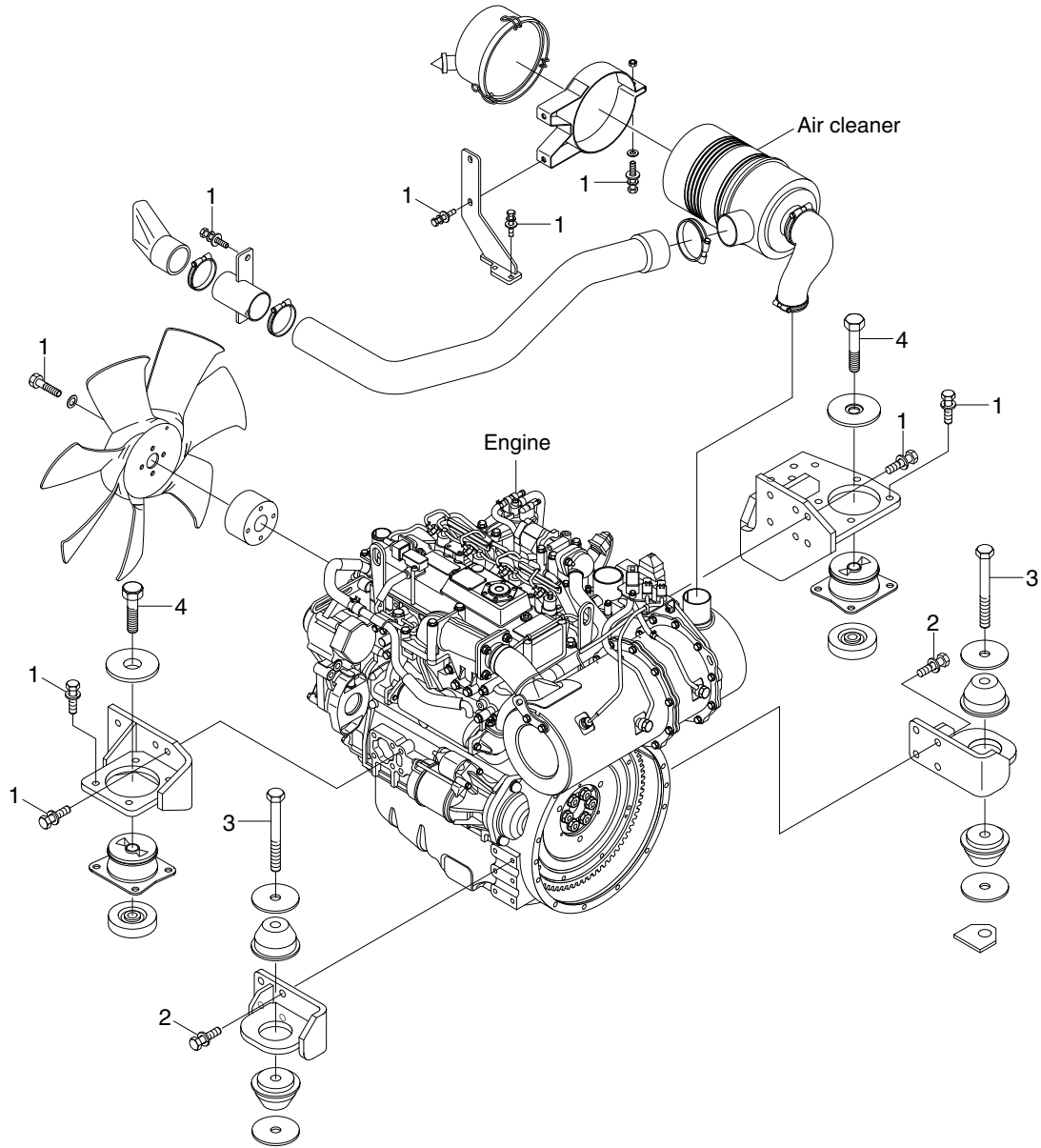
GROUP 1 INTRODUCTION GUIDE

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

1. ENGINE AND ACCESSORIES MOUNTING



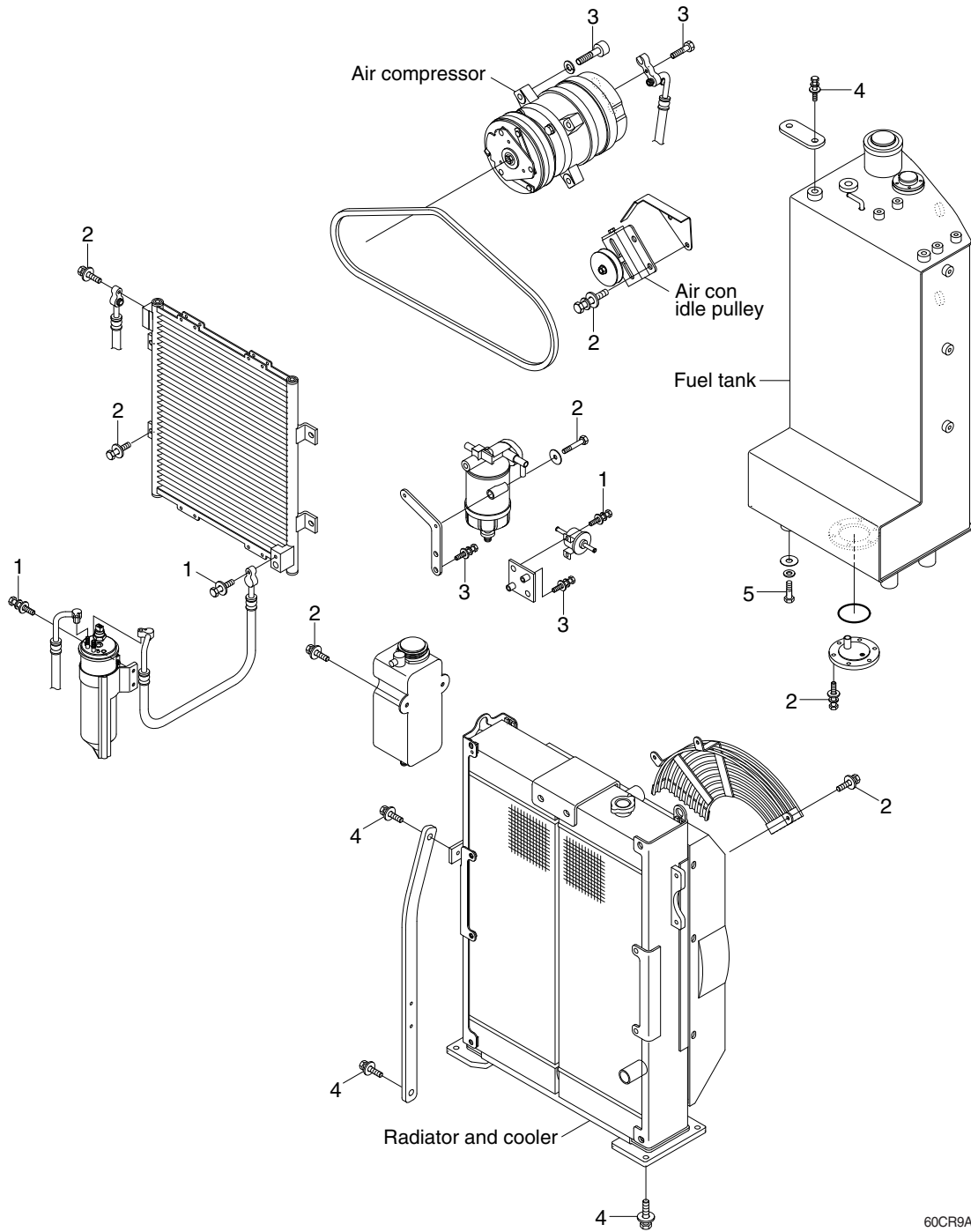
60CR9A8CM01

Tightening torque

Item	Size	kgf·m	lbf·ft
1	M 8×1.25	3.0±2.0	21.7±14.5
2	M10×1.5	6.9±1.0	49.9±7.2

Item	Size	kgf·m	lbf·ft
3	M12×1.75	10±1.0	72.3±7.2
4	M16×2.0	25±2.5	181±18

2. COOLING SYSTEM AND FUEL TANK MOUNTING



60CR9A8CM02

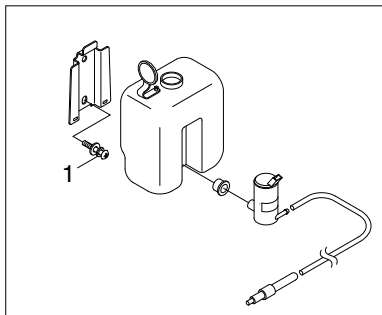
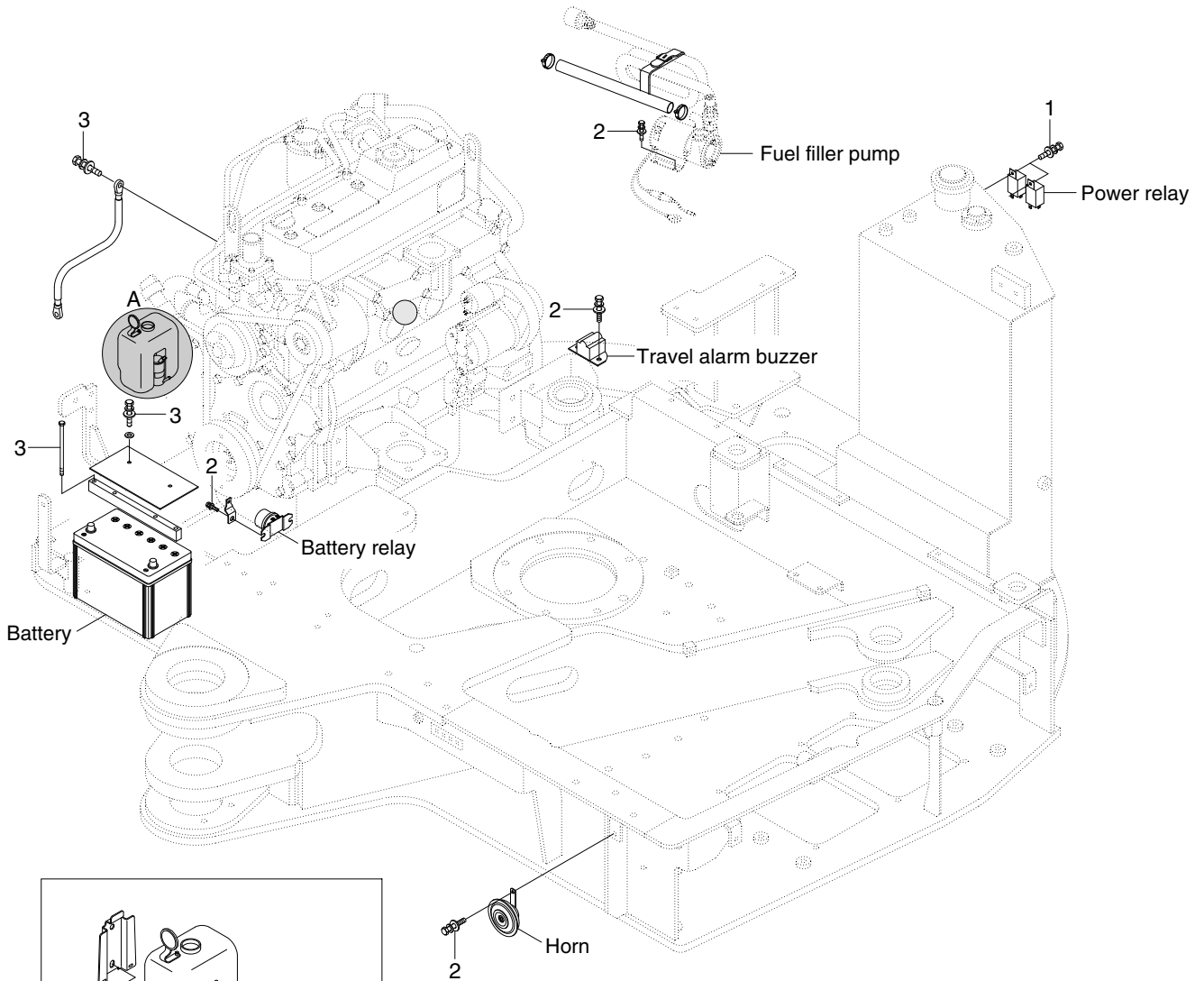
·Tightening torque

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	M10×1.25	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	214.8±32.5

GROUP 3 ELECTRIC SYSTEM

ELECTRIC COMPONENTS MOUNTING



DETAIL A

60CR9A8CM03

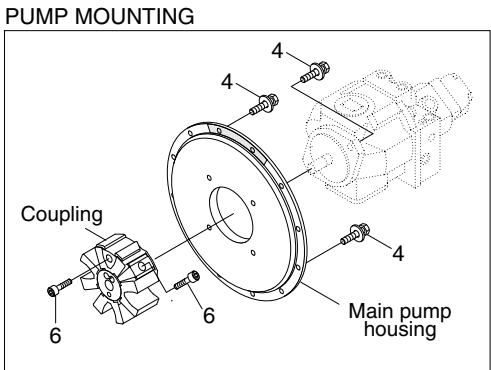
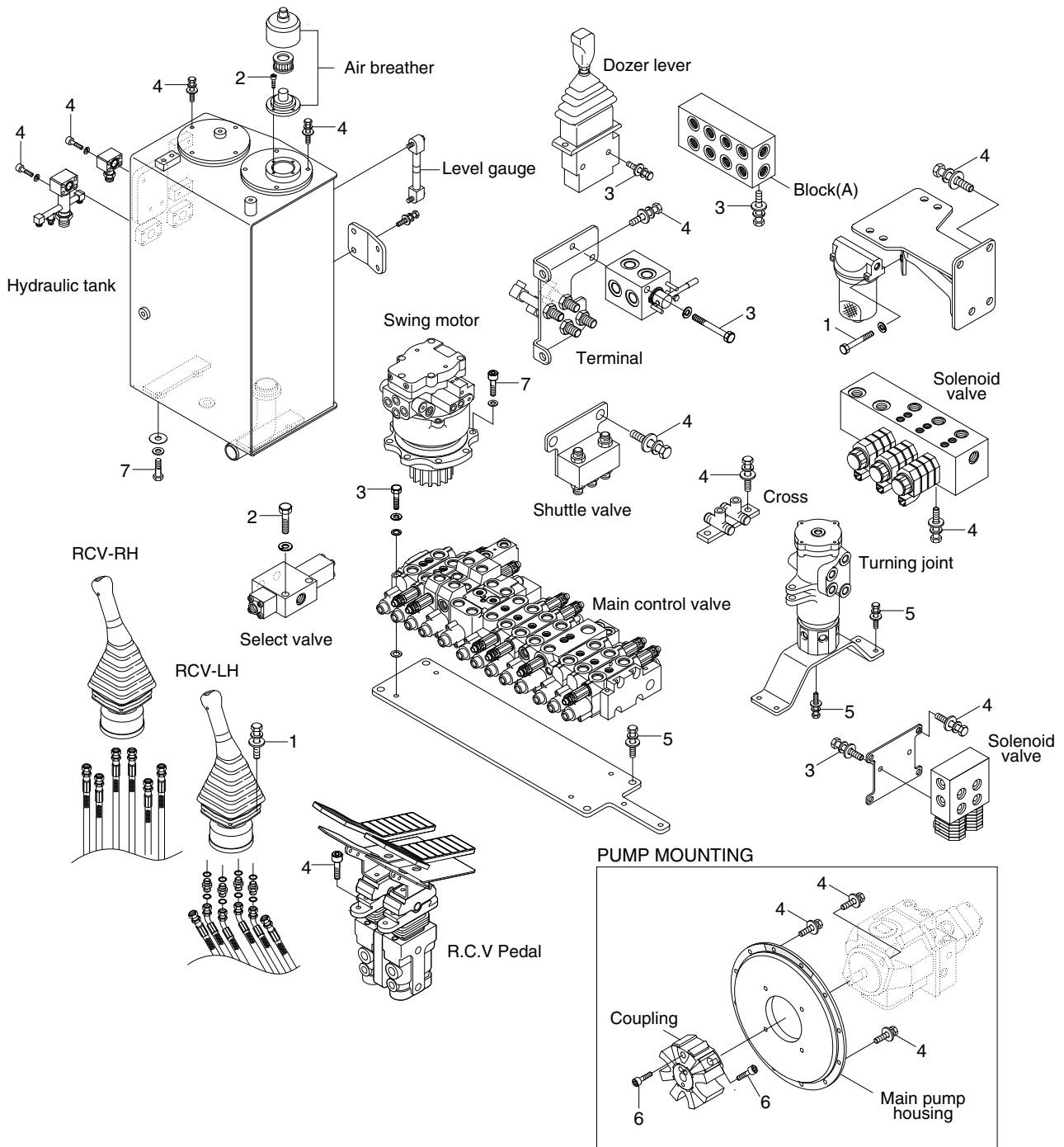
· Tightening torque

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



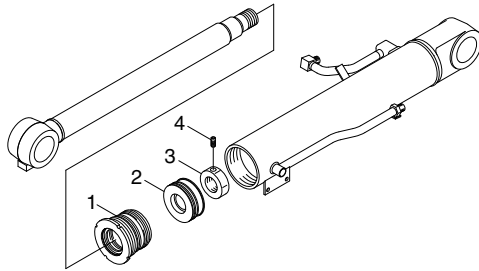
60CR9A8CM05

·Tightening torque

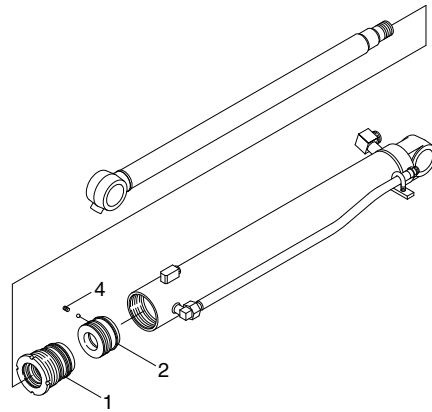
Item	Size	kgf-m	lbf-ft
1	M 6×1.0	1.05±0.2	7.6±1.45
2	M 6×1.0	1.44±0.3	10.4±2.2
3	M 8×1.25	2.5±0.5	18.1±3.6
4	M10×1.5	6.9±1.4	49.9±10.1

Item	Size	kgf-m	lbf-ft
5	M12×1.75	12.8±3.0	92.5±21.7
6	M14×2.0	19.6±2.9	141.7±21.0
7	M16×2.0	29.7±4.5	214.8±32.6

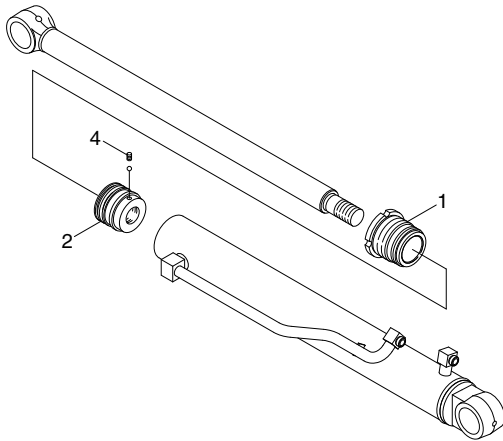
2. HYDRAULIC COMPONENTS MOUNTING 2



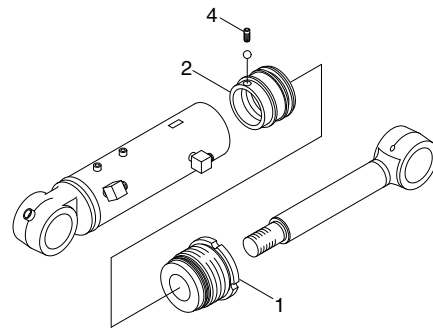
BOOM CYLINDER



ARM CYLINDER



BUCKET CYLINDER



DOZER CYLINDER

60CR9A8CM06

· Tightening torque

Rod cover (1)

Item	Size	kgf·m	lbf·ft
Boom cylinder	M115	70±7.0	506±51
Arm cylinder	M95	72±7.2	521±52
Bucket cylinder	M85	68±6.8	492±49
Dozer cylinder	M115	95±9.5	690±69

Piston nut (3)

Item	Size	kgf·m	lbf·ft
Boom cylinder	M42	75±7.5	542±54

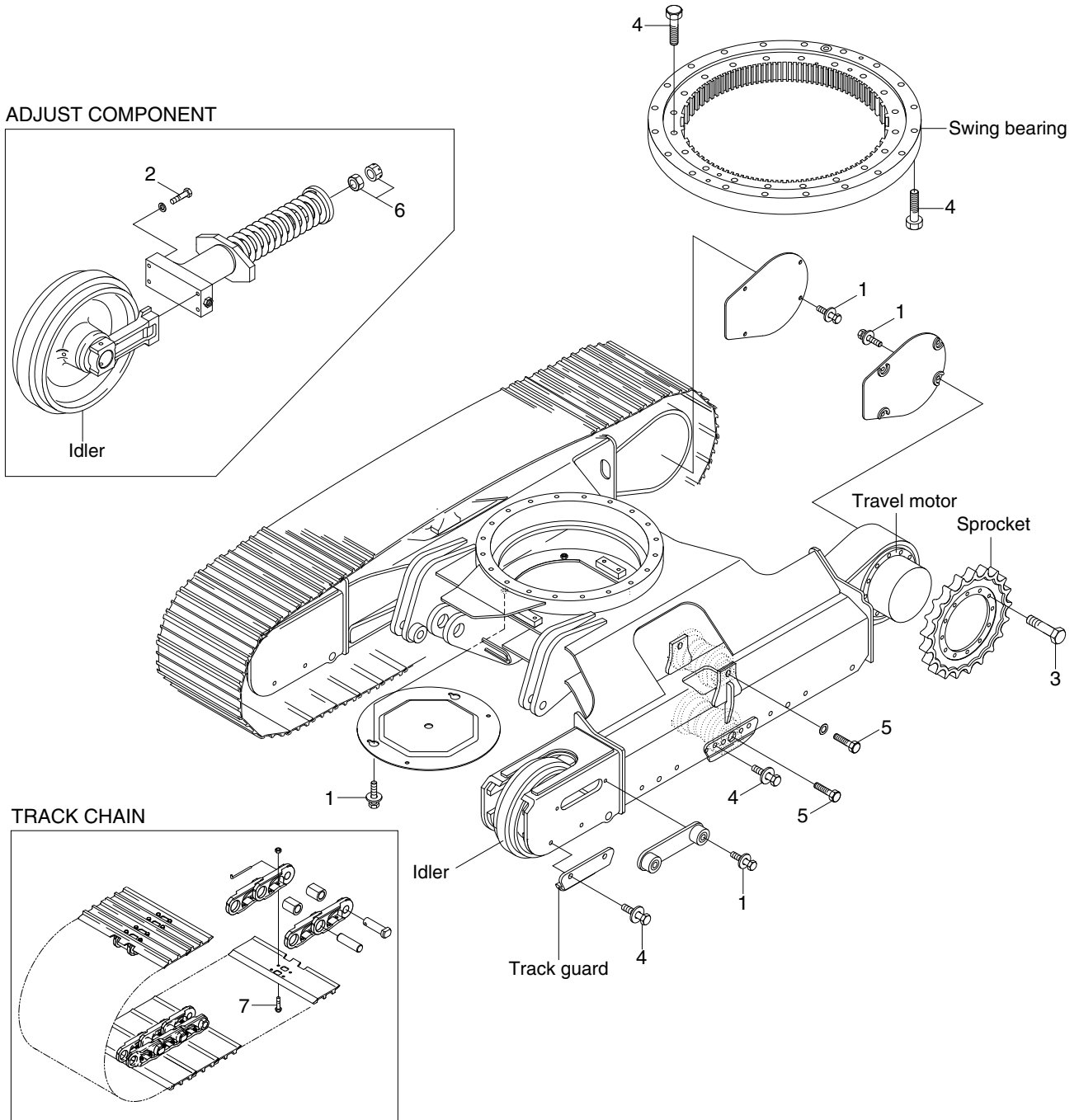
Set screw (4)

Item	Size	kgf·m	lbf·ft
Boom cylinder	M8	1.5	10.8
Arm cylinder	M8	2±0.2	14.5±1.4
Bucket cylinder	M8	2±0.2	14.5±1.4
Dozer cylinder	M8	2±0.2	14.5±1.4
Boom swing cyl	M8	2±0.2	14.5±1.4

Piston (2)

Item	Size	kgf·m	lbf·ft
Boom cylinder	M52	50±5	361±36
Arm cylinder	M39	100±10	723±72
Bucket cylinder	M36	90±9	650±65
Dozer cylinder	M45	113±11.3	817±82
Boom swing cyl	M45	113±11.3	817±82

GROUP 5 UNDERCARRIAGE



60CR9A8CM07

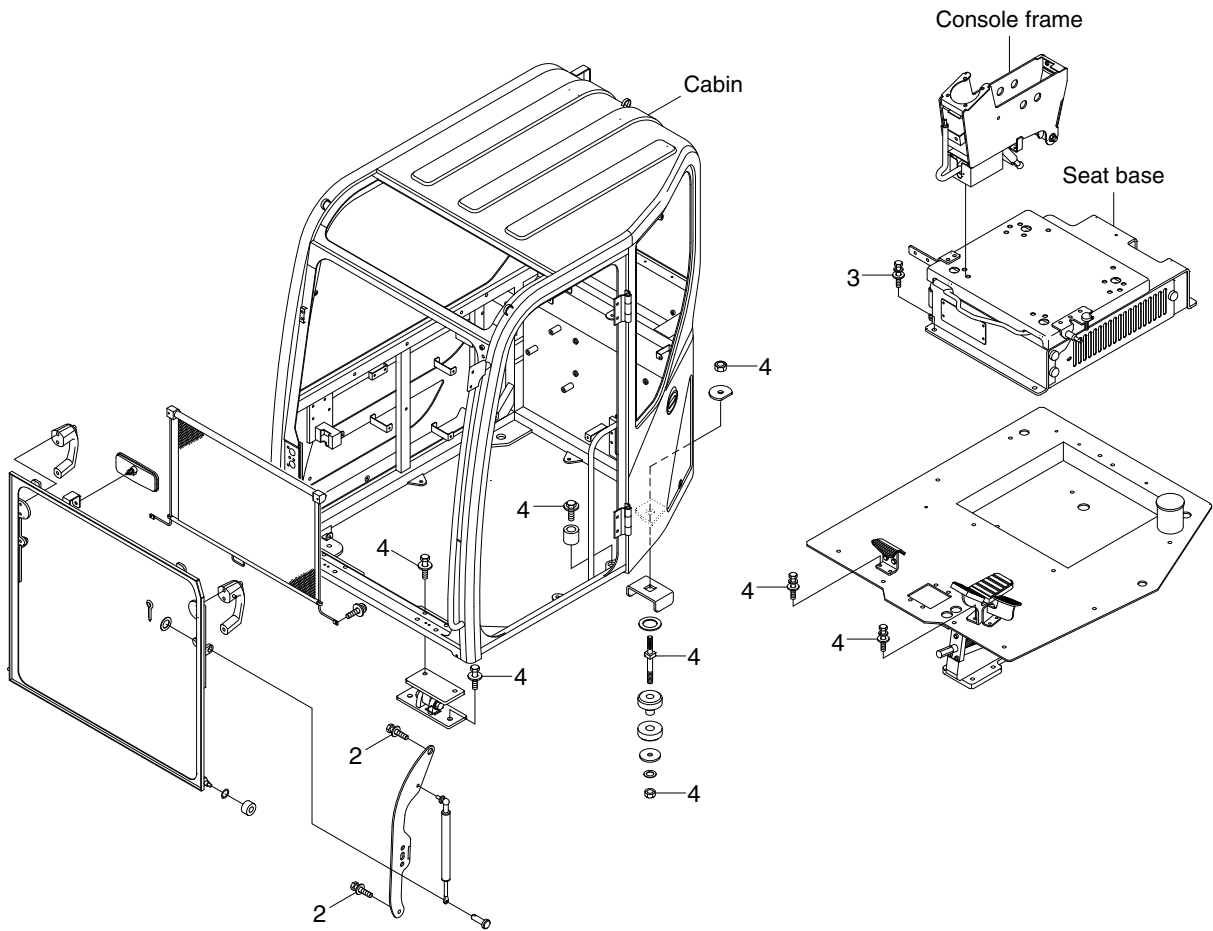
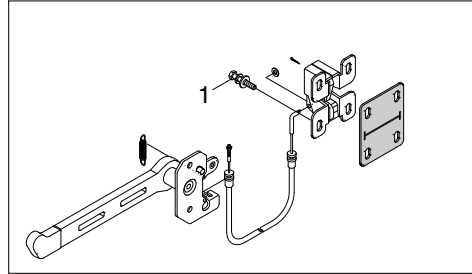
Tightening torque

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	M14×2.0	19.6±2.9	141.7±21.0
4	M16×2.0	29.7±4.5	215±32.6

Item	Size	kgf·m	lbf·ft
5	M18×2.0	41.3±6.2	298.7±44.8
6	M20×2.5	100±15	723.3±108
7	1/2-20UNF	19.5±1.5	141.0±10.8

GROUP 6 STRUCTURE

1. CAB AND ACCESSORIES MOUNTING



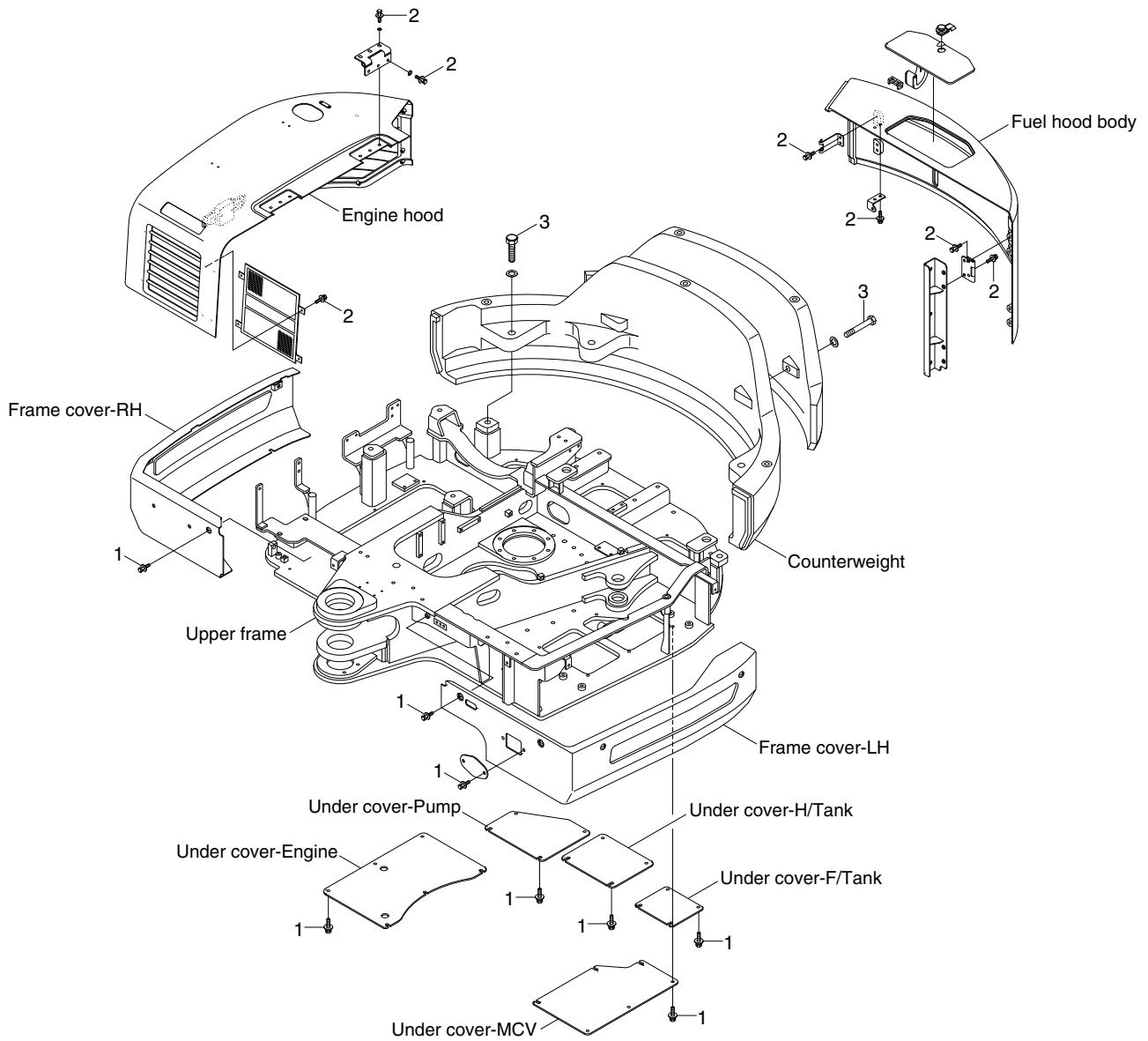
60CR9A8CM08

·Tightening torque

Item	Size	kgf·m	lbf·ft
1	M 6×1.0	1.44±0.3	10.4±2.1
2	M 8×1.25	2.5±0.5	18.1±3.6

Item	Size	kgf·m	lbf·ft
3	M10×1.5	4.7±0.9	4.0±6.5
4	M12×1.75	12.8±3.0	92.6±21.7

2. COWLING MOUNTING



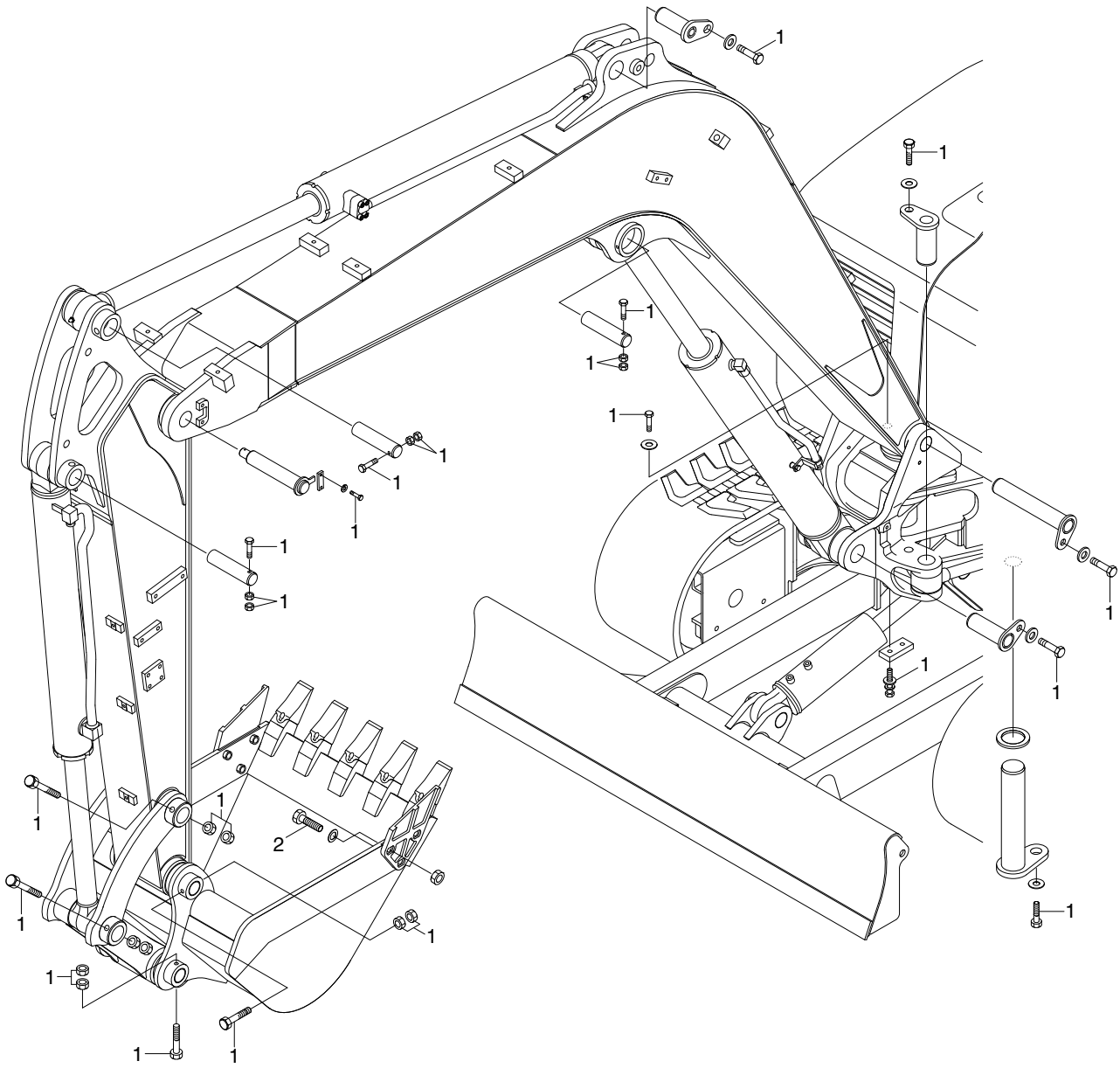
60CR9A8CM09

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	M24×3.0	100±15	723.5±108.5

GROUP 7 WORK EQUIPMENT



60CR9A8CM10

· Tightening torque

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

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