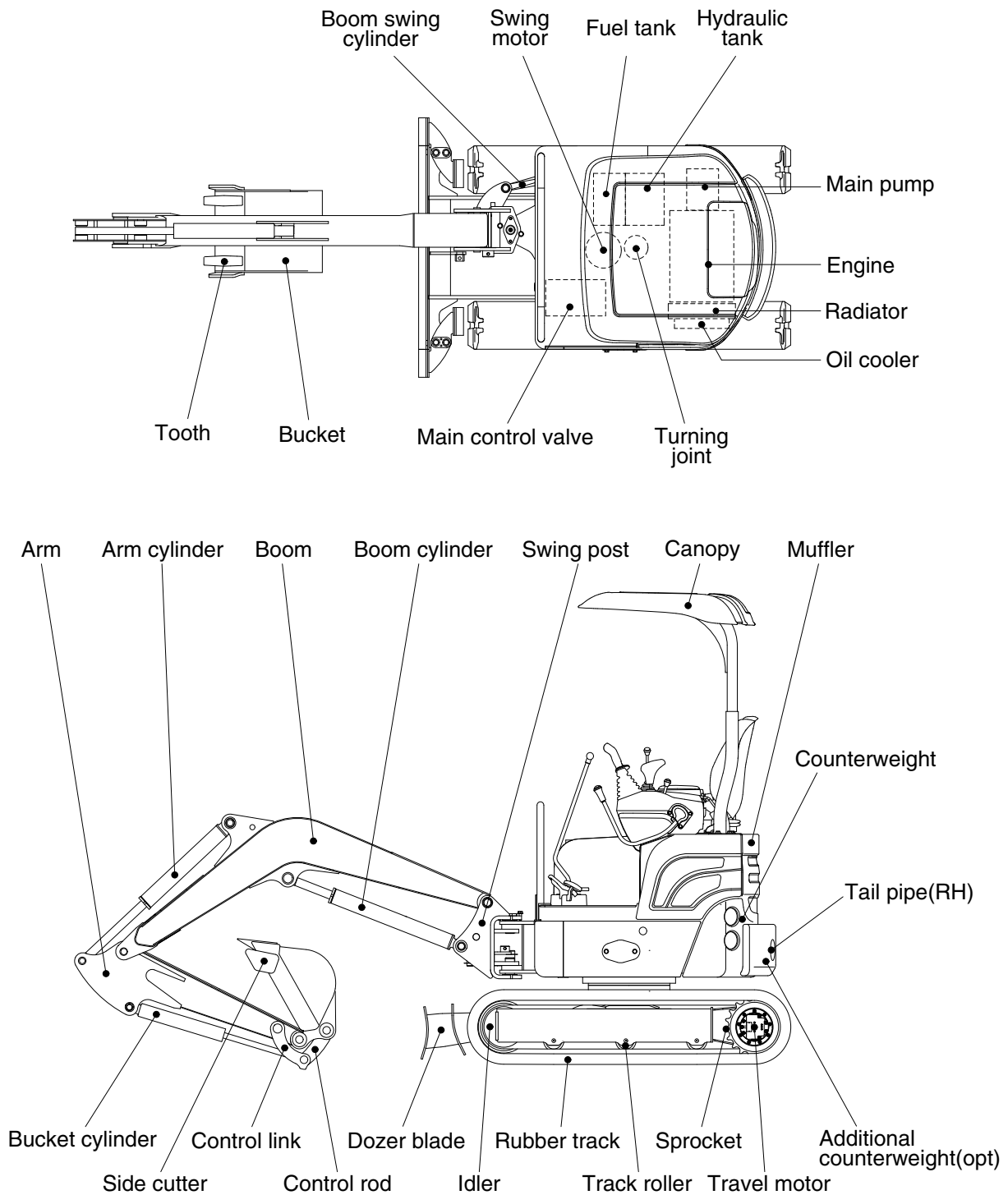


SPECIFICATIONS

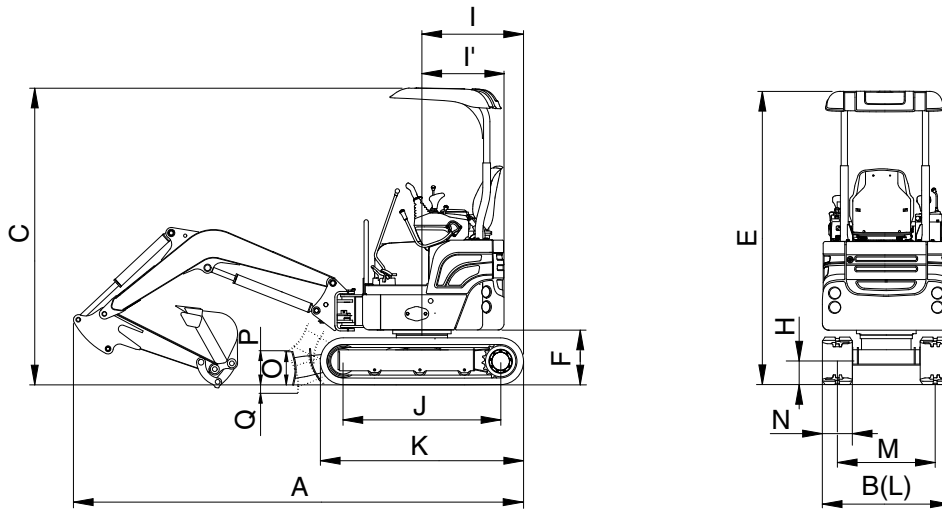
1. MAJOR COMPONENT



17Z9A2SP01

2. SPECIFICATIONS

1) 1.80 m (5' 11") MONO BOOM, 0.96 m (3' 2") ARM, WITH BOOM SWING POST

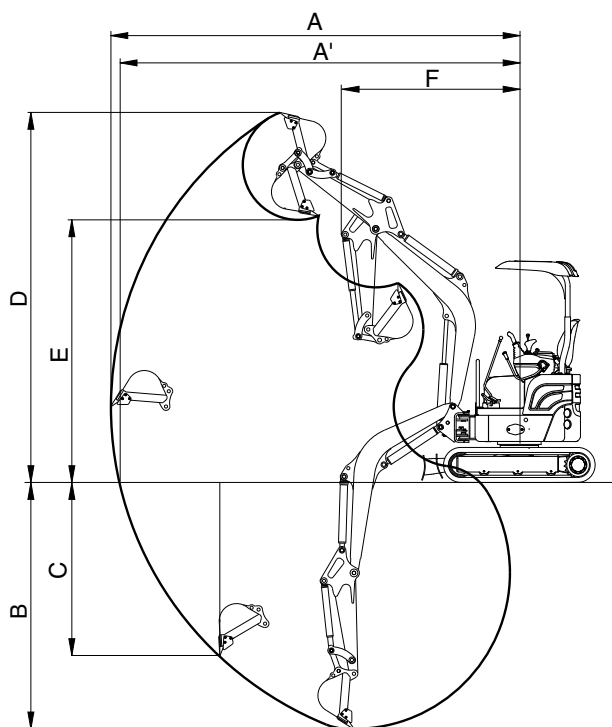


17Z9A2SP02

Description		Unit	Specification
Operating weight (canopy)		kg (lb)	1700 (3750)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	0.04 (0.05)
Overall length	A	mm (ft-in)	3500 (11' 6")
Overall width, with 230 mm shoe (extension crawler)	B		990~1300 (3' 3" ~ 4' 3")
Overall height	C		2320 (7' 7")
Overall height of canopy	E		2320 (7' 7")
Ground clearance of counterweight	F		440 (1' 5")
Minimum ground clearance	H		170 (0' 7")
Rear-end distance	I		645 (2' 1")
Rear-end swing radius	I'		645 (2' 1")
Distance between tumblers	J		1230 (4' 0")
Undercarriage length	K		1590 (5' 3")
Undercarriage width (extension crawler)	L		990~1300 (3' 3" ~ 4' 3")
Track gauge (extension crawler)	M		760~1070 (2' 6" ~ 3' 6")
Track shoe width, standard	N		230 (9")
Height of blade	O		250 (9.8")
Ground clearance of blade up	P		285 (11.2")
Depth of blade down	Q		225 (8.9")
Travel speed (low/high)		km/hr (mph)	2.2/4.2 (1.4/2.5)
Swing speed		rpm	9.5
Gradeability		Degree (%)	30 (58)
Ground pressure 230 mm rubber shoe (canopy)		kgf/cm ² (psi)	0.25 (3.98)
Max traction force		kg (lb)	1420 (3130)

3. WORKING RANGE

1) 1.80 m (5' 11") MONO BOOM WITH BOOM SWING POST



17Z9A2SP03

Description		0.96 m (3' 2") Arm	1.12 m (3' 8") Arm
Max digging reach	A	3900 mm (12' 10")	4030 mm (13' 3")
Max digging reach on ground	A'	3800 mm (12' 6")	3940 mm (12' 11")
Max digging depth	B	2200 mm (7' 3")	2350 mm (8' 4")
Max vertical wall digging depth	C	1320 mm (4' 4")	1460 mm (4' 9")
Max digging height	D	3580 mm (11' 9")	3680 mm (12' 1")
Max dumping height	E	2570 mm (8' 5")	2670 mm (8' 9")
Min swing radius	F	1570 mm (5' 1")	1600 mm (5' 3")
Boom swing radius (left/right)		70°/54°	
Bucket digging force	SAE	13.7 kN	13.7 kN
		1400 kgf	1400 kgf
		2960 lbf	2960 lbf
	ISO	15.5 kN	15.5 kN
		1580 kgf	1580 kgf
		3490 lbf	3490 lbf
Arm crowd force	SAE	8.3 kN	7.5 kN
		850 kgf	760 kgf
		1880 lbf	1680 lbf
	ISO	8.5 kN	7.6 kN
		870 kgf	780 kgf
		1920 lbf	1720 lbf

4. WEIGHT

Item	kg	lb
Upperstructure assembly	923	2030
Main frame weld assembly	160	353
Engine assembly	75	165
Main pump assembly	13	29
Main control valve assembly	14	31
Swing motor assembly	15	33
Hydraulic oil tank assembly	17	37
Fuel tank assembly	5	11
Boom swing post	35	80
Counterweight	188	414
Canopy assembly	40	88
Front guard	8	18
Lower chassis assembly	550	1210
Track frame weld assembly	185	408
Swing bearing	20	44
Travel motor assembly	18	40
Turning joint	14	31
Track recoil spring	11	24
Idler	15	33
Track roller	5	11
Sprocket	4	9
Rubber track (230 mm)	59	130
Dozer blade assembly	70	154
Front attachment assembly (1.8 m boom, 0.96 m arm, 0.04 m ³ SAE heaped bucket)	227	500
1.8 m boom assembly	70	154
0.96 m arm assembly	35	77
0.04 m ³ SAE heaped bucket	40	90
Boom cylinder assembly	17	37
Arm cylinder assembly	15	33
Bucket cylinder assembly	11	24
Bucket control link assembly	10	22
Dozer cylinder assembly	8	18
Boom swing cylinder assembly	10	22
Extension cylinder assembly	8	18

5. LIFTING CAPACITIES

1) 1.8 m (5' 11") boom, 0.96 m (3' 2") arm equipped with 0.04 m³ (SAE heaped) bucket and 230 mm (9") rubber track, the dozer blade up, track extended with 188 kg (414 lb) counterweight.

·  : Rating over-front

·  : Rating over-side or 360 degree

Load point height		Load radius						At max. reach		
		2.0 m (7.0 ft)		2.5 m (8.0 ft)		3.0 m (10.0 ft)		Capacity		Reach
										m (ft)
3.0 m (10.0 ft)	kg lb							280 620	*290 *640	2.63 (8.6)
2.5 m (8.0 ft)	kg lb			310 680	*310 *680			200 440	210 460	3.13 (10.3)
2.0 m (7.0 ft)	kg lb			300 660	310 680	210 460	220 490	170 370	180 400	3.43 (11.3)
1.5 m (5.0 ft)	kg lb	430 950	440 970	290 640	300 660	210 460	220 490	150 330	160 350	3.60 (11.8)
1.0 m (3.0 ft)	kg lb	400 880	410 900	270 600	290 640	200 440	210 460	140 310	150 330	3.67 (12.0)
0.5 m (2.0 ft)	kg lb	370 820	390 860	260 570	270 600	190 420	200 440	140 310	150 330	3.64 (11.9)
Ground Line	kg lb	360 790	370 820	250 550	270 600	190 420	200 440	150 330	160 350	3.51 (11.5)
-0.5 m (-2.0 ft)	kg lb	360 790	370 820	250 550	260 570	190 420	200 440	170 370	180 400	3.27 (10.7)
-1.0 m (-3.0 ft)	kg lb	360 790	380 840	250 550	270 600			210 460	220 490	2.87 (9.4)
-1.5 m (-5.0 ft)	kg lb	380 840	390 860							

Note 1. Lifting capacity are based on SAE J1097 and ISO 10567.

2. Lifting capacity of the ROBEX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.

3. The load point is a hook located on the back of the bucket.

4. *indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.

Lifting capacities will vary with different work tools, ground conditions and attachments.

The difference between the weight of a work tool attachment must be subtracted.

Consult your Hyundai dealer regarding the lifting capacities for specific work tools and attachments.

※ Please be aware of the local regulations and instructions for lifting operations.

▲ Failure to comply to the rated load can cause possible personal injury or property damage.

Make adjustments to the rated load as necessary for non-standard configurations.

2) 1.8 m (5' 11") boom, 0.96 m (3' 2") arm equipped with 0.04 m³ (SAE heaped) bucket and 230 mm (9") rubber track, the dozer blade down, track extended with 188 kg (414 lb) counterweight.

-  : Rating over-front •  : Rating over-side or 360 degree

Load point height		Load radius						At max. reach		
		2.0 m (7.0 ft)		2.5 m (8.0 ft)		3.0 m (10.0 ft)		Capacity		Reach
										m (ft)
3.0 m (10.0 ft)	kg lb							*290 *640	*290 *640	2.63 (8.6)
2.5 m (8.0 ft)	kg lb			*310 *680	*310 *680			*290 *640	220 490	3.13 (10.3)
2.0 m (7.0 ft)	kg lb			*320 *710	*320 *710	*320 *710	230 510	*300 *660	180 400	3.43 (11.3)
1.5 m (5.0 ft)	kg lb	*450 *990	*450 *990	*380 *840	310 680	*340 *750	230 510	*300 *660	160 350	3.60 (11.8)
1.0 m (3.0 ft)	kg lb	*620 *1370	430 950	*450 *990	300 660	*380 *840	220 490	*310 *680	150 330	3.67 (12.0)
0.5 m (2.0 ft)	kg lb	*740 *1630	400 880	*520 *1150	280 620	*410 *900	210 460	*320 *710	150 330	3.64 (11.9)
Ground Line	kg lb	*790 *1740	390 860	*550 *1210	270 600	*420 *930	210 460	*330 *730	160 350	3.51 (11.5)
-0.5 m (-2.0 ft)	kg lb	*760 *1680	390 860	*540 *1190	270 600	*400 *880	210 460	*330 *730	180 400	3.27 (10.7)
-1.0 m (-3.0 ft)	kg lb	*660 *1460	390 860	*470 *1040	270 600			*320 *710	230 510	2.87 (9.4)
-1.5 m (-5.0 ft)	kg lb	*450 *990	400 880							

3) 1.8 m (5' 11") boom, 1.12 m (3' 8") arm equipped with 0.04 m³ (SAE heaped) bucket and 230 mm (9") rubber track, the dozer blade up, track extended with 188 kg (414 lb) counterweight.

-  : Rating over-front •  : Rating over-side or 360 degree

Load point height		Load radius						At max. reach		
		2.0 m (7.0 ft)		2.5 m (8.0 ft)		3.0 m (10.0 ft)		Capacity		Reach
										m (ft)
3.0 m (10.0 ft)	kg lb							240 530	250 550	2.87 (9.4)
2.5 m (8.0 ft)	kg lb			*260 *570	*260 *570			180 400	190 420	3.31 (10.9)
2.0 m (7.0 ft)	kg lb			*280 *620	*280 *620	210 460	220 490	150 330	160 350	3.59 (11.8)
1.5 m (5.0 ft)	kg lb	*380 *840	*380 *840	290 640	300 660	210 460	220 490	140 310	140 310	3.75 (12.3)
1.0 m (3.0 ft)	kg lb	400 880	420 930	280 620	290 640	200 440	210 460	130 290	140 310	3.82 (12.5)
0.5 m (2.0 ft)	kg lb	370 820	390 860	260 570	270 600	190 420	200 440	130 290	140 310	3.79 (12.4)
Ground Line	kg lb	360 790	370 820	250 550	260 570	190 420	200 440	130 290	140 310	3.67 (12.0)
-0.5 m (-2.0 ft)	kg lb	350 770	370 820	240 530	260 570	180 400	190 420	150 330	160 350	3.27 (10.7)
-1.0 m (-3.0 ft)	kg lb	350 770	370 820	250 550	260 570			180 400	190 420	3.08 (10.1)
-1.5 m (-5.0 ft)	kg lb	360 790	380 840					270 600	*280 *620	2.47 (8.1)

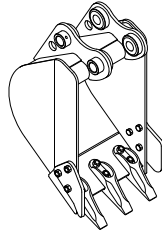
4) 1.8 m (5' 11") boom, 1.12 m (3' 8") arm equipped with 0.04 m³ (SAE heaped) bucket and 230 mm (9") rubber track, the dozer blade down, track extended with 188 kg (414 lb) counterweight.

•  : Rating over-front

•  : Rating over-side or 360 degree

Load point height		Load radius						At max. reach		
		2.0 m (7.0 ft)		2.5 m (8.0 ft)		3.0 m (10.0 ft)		Capacity		Reach
										m (ft)
3.0 m (10.0 ft)	kg lb							*270 *600	260 570	2.87 (9.4)
2.5 m (8.0 ft)	kg lb			*260 *570	*260 *570			*270 *600	200 440	3.31 (10.9)
2.0 m (7.0 ft)	kg lb			*280 *620	*280 *620	*290 *640	230 510	*270 *600	170 370	3.59 (11.8)
1.5 m (5.0 ft)	kg lb	*380 *840	*380 *840	*340 *750	310 680	*320 *710	230 510	*280 *620	150 330	3.75 (12.3)
1.0 m (3.0 ft)	kg lb	*550 *1210	430 950	*420 *930	300 660	*350 *770	220 490	*290 *640	140 310	3.82 (12.5)
0.5 m (2.0 ft)	kg lb	*700 *1540	400 880	*490 *1080	280 620	*390 *860	210 460	*300 *660	140 310	3.79 (12.4)
Ground Line	kg lb	*770 *1700	390 860	*540 *1190	270 600	*410 *900	200 440	*310 *680	150 330	3.67 (12.0)
-0.5 m (-2.0 ft)	kg lb	*770 *1700	380 840	*540 *1190	270 600	*410 *900	200 440	*310 *680	160 350	3.45 (11.3)
-1.0 m (-3.0 ft)	kg lb	*700 *1540	380 840	*500 *1100	270 600			*310 *680	200 440	3.08 (10.1)
-1.5 m (-5.0 ft)	kg lb	*530 *1170	390 860					*280 *620	*280 *620	2.47 (8.1)

6. BUCKET SELECTION GUIDE



0.04 m³ SAE
heaped bucket

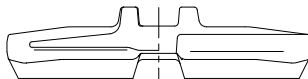
Capacity		Width		Weight	Recommendation
					1.8 m (5' 11") boom
SAE heaped	CECE heaped	Without side cutter	With side cutter		0.96 m (3' 2") arm
0.04m ³ (0.05 yd ³)	0.03 m ³ (0.04 yd ³)	365 mm (14.4")	410 mm (16.1")	40 kg (88 lb)	Applicable for materials with density of 1600 kgf/m ³ (2700 lb /yd ³) or less

7. UNDERCARRIAGE

(1) TRACKS

X-leg type center frame is integrally welded with reinforced box-section track frames. The design includes dry tracks, lubricated rollers, idlers, sprockets, hydraulic track adjusters with shock absorbing springs and assembled track-type tractor shoes with triple grousers.

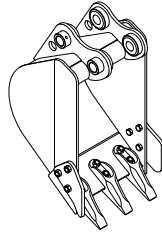
(2) TYPES OF SHOES

Model	Shapes		Rubber track
			
R17Z-9A	Shoe width	mm (in)	230 (9")
	Operating weight	kg (lb)	1700 (3750)
	Ground pressure	kgf/cm ² (psi)	0.28 (3.98)
	Overall width	mm (ft-in)	1300 (4' 3")

(3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Track rollers	3 EA

6. BUCKET SELECTION GUIDE



0.04 m³ SAE
heaped bucket

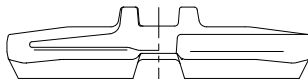
Capacity		Width		Weight	Recommendation
					1.8 m (5' 11") boom
SAE heaped	CECE heaped	Without side cutter	With side cutter		0.96 m (3' 2") arm
0.04m ³ (0.05 yd ³)	0.03 m ³ (0.04 yd ³)	365 mm (14.4")	410 mm (16.1")	40 kg (88 lb)	Applicable for materials with density of 1600 kgf/m ³ (2700 lb /yd ³) or less

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Model	Shapes		Rubber track
			
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	Ground pressure	kgf/cm ² (psi)	0.28 (3.98)
	Overall width	mm (ft-in)	1300 (4' 3")

(3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Track rollers	3 EA

8. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	Kubota D902
Type	4-cycle vertical overhead valve, diesel fuel
Cooling method	Water cooling
Number of cylinders and arrangement	3 cylinders, in-line
Firing order	1-2-3
Combustion chamber type	Swirl chamber type
Cylinder bore × stroke	72 × 73.6 mm (2.83" × 2.90")
Piston displacement	898 cc (54.8 cu in)
Compression ratio	24 : 1
Rated gross horse power (SAE J1995)	16.2 Hp at 2400 rpm (12.1 kW at 2400 rpm)
Maximum torque at 1900 rpm	5.6 kgf · m (36 lbf · ft)
Engine oil quantity	3.7 l (1.0 U.S. gal)
Dry weight	75 kg (165 lb)
High idling speed	2600+ 30 rpm
Low idling speed	1450 ± 25 rpm
Rated fuel consumption	208 g/Hp · hr at 2300 rpm (279 g/kW · hr at 2300 rpm)
Starting motor	12V-1.2 kW
Alternator	12V-40 A
Battery	1 × 12 V × 45 Ah

2) MAIN PUMP (P1, P2+P3)

Item	Specification
Type	Variable displacement tandem axis piston pumps + gear pump
Capacity	2 × 7.5 + 4.5 cc/rev
Rated oil flow	2 × 18.8 + 11.3 l /min (2 × 5 + 3 U.S. gpm / 2 × 4.1 + 2.5 U.K. gpm)
Rated speed	2500 rpm

3) PILOT PUMP (P4)

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	2.7 cc/rev
Rated oil flow	6.8 ℓ /min (1.8 U.S. gpm / 1.5 U.K. gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	Sectional, 9 spools (12 blocks)
Operating method	Hydraulic pilot system
Main relief valve pressure (P1, P2 / P3)	210 kgf/cm ² (2990 psi) / 200 kgf/cm ² (2840 psi)
Overload relief valve pressure	230 kgf/cm ² (3270 psi)

5) SWING MOTOR

Item	Specification
Type	Fixed displacement orbit motor
Capacity	19.5 cc/rev
Relief pressure	135 kgf/cm ² (1920 psi)

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	210 kgf/cm ² (2990 psi)
Reduction gear type	2-stage planetary

7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	ø 60 × ø 40 × 440 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	ø 60 × ø 40 × 353 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	ø 55 × ø 35 × 320 mm
	Cushion	-
Boom swing cylinder	Bore dia × Rod dia × Stroke	ø 55 × ø 30 × 355 mm
	Cushion	-
Dozer cylinder	Bore dia × Rod dia × Stroke	ø 65 × ø 30 × 115 mm
	Cushion	-
Extension cylinder	Bore dia × Rod dia × Stroke	ø 55 × ø 30 × 310 mm
	Cushion	-

※ Discoloration of cylinder rod can occur when the friction reduction additive of lubrication oil spreads on the rod surface.

※ Discoloration does not cause any harmful effect on the cylinder performance.

8) BUCKET

Item	Capacity		Tooth quantity	Width	
	SAE heaped	CECE heaped		Without side cutter	With side cutter
Standard	0.04 m ³ (0.05 yd ³)	0.03 m ³ (0.04 yd ³)	3	365 mm (14.4")	410 mm (16.1")

9. RECOMMENDED OILS

HYUNDAI genuine lubricating oils have been developed to offer the best performance and service life for your equipment. These oils have been tested according to the specifications of HYUNDAI and, therefore, will meet the highest safety and quality requirements.

We recommend that you use only HYUNDAI genuine lubricating oils and grease officially approved by HYUNDAI.

Service point	Kind of fluid	Capacity ℓ (U.S. gal)	Ambient temperature °C(°F)								
			-50 (-58)	-30 (-22)	-20 (-4)	-10 (14)	0 (32)	10 (50)	20 (68)	30 (86)	40 (104)
Engine oil pan	Engine oil	3.7 (1.0)	★SAE 5W-40								
								SAE 30			
								SAE 10W			
								SAE 10W-30			
								SAE 15W-40			
Final drive	Gear oil	0.33×2 (0.99×2)	★SAE 75W-90								
								SAE 85W-140			
Hydraulic tank	Hydraulic oil	Tank: 13 (3.4) System: 23 (6.1)	★ISO VG 15								
								ISO VG 46, HBHO VG 46★ ³			
								ISO VG 68			
Fuel tank	Diesel fuel★ ¹	20 (5.3)	★ASTM D975 NO.1								
								ASTM D975 NO.2			
Fitting (grease nipple)	Grease	As required	★NLGI NO.1								
								NLGI NO.2			
Radiator (reservoir tank)	Mixture of antifreeze and soft water★ ²	3.5 (0.9)	Ethylene glycol base permanent type (50 : 50)								
			★Ethylene glycol base permanent type (60 : 40)								

SAE : Society of Automotive Engineers

API : American Petroleum Institute

ISO : International Organization for Standardization

NLGI : National Lubricating Grease Institute

ASTM : American Society of Testing and Material

★ : Cold region (Russia, CIS, Mongolia)

★¹ : Ultra low sulfur diesel
- sulfur content ≤ 15 ppm

★² : Soft water
City water or distilled water

★³ : Hyundai Bio Hydraulic Oil

※ Using any lubricating oils other than HYUNDAI genuine products may lead to a deterioration of performance and cause damage to major components.

※ Do not mix HYUNDAI genuine oil with any other lubricating oil as it may result in damage to the systems of major components.

※ Do not use any engine oil other than that specified above, as it may clog the diesel particulate filter(DPF).

※ For HYUNDAI genuine lubricating oils and grease for use in regions with extremely low temperatures, please contact HYUNDAI dealers.