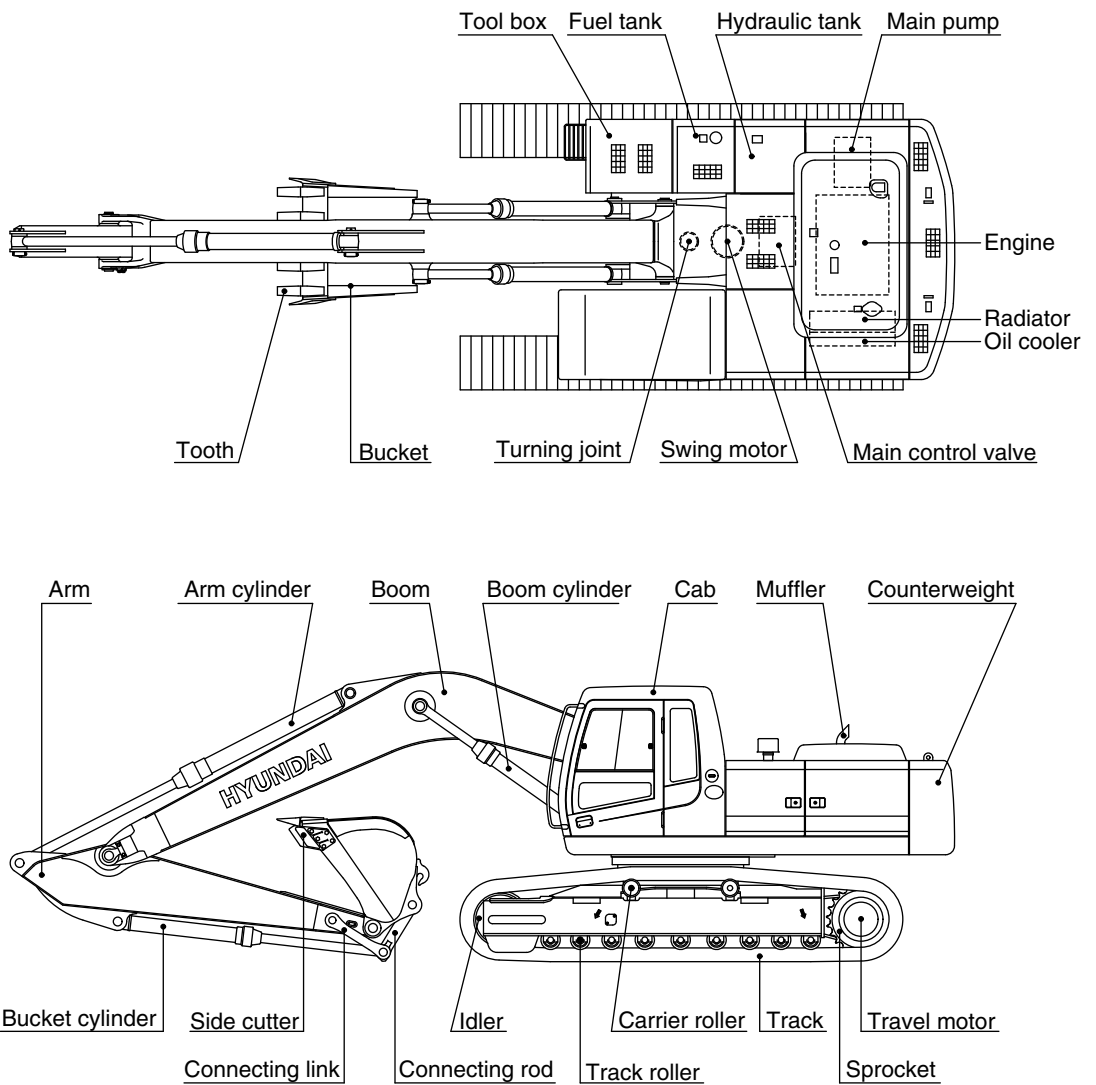


SPECIFICATIONS

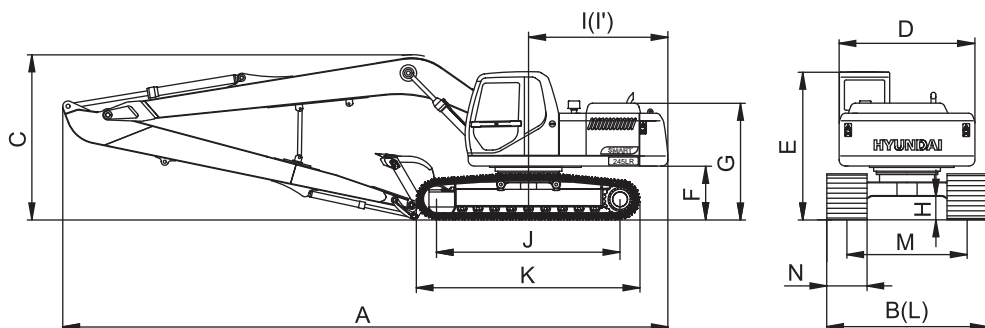
1. MAJOR COMPONENT



RD21072SP01

2. SPECIFICATIONS

1) R245LR LONG REACH

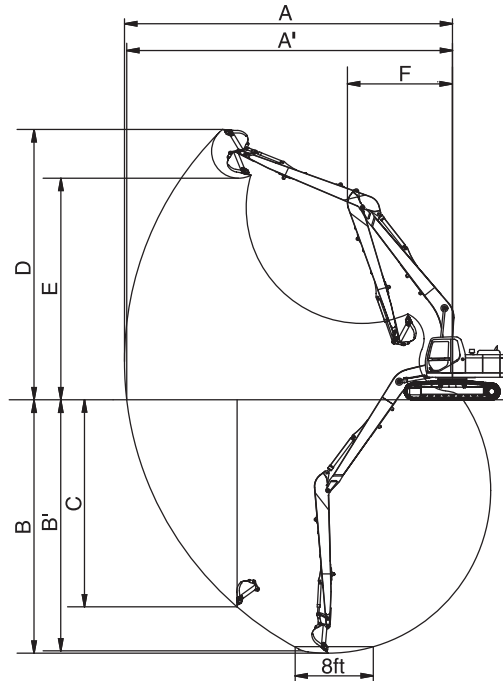


RD22072SP06

Description		Unit	Specification
Operating weight		kg(lb)	24500(54000)
Bucket capacity(SAE heaped), standard		m ³ (yd ³)	0.52(0.68)
Overall length	A	mm(ft-in)	12030(39' 6")
Overall width, with 800mm shoe	B		3190(10' 6")
Overall height	C		3280(10' 9")
Superstructure width	D		2700(8' 10")
Overall height of cab	E		2920(9' 7")
Ground clearance of counterweight	F		1060(3' 6")
Engine cover height	G		2320(7' 7")
Minimum ground clearance	H		480(1' 7")
Rear-end distance	I		2770(9' 1")
Rear-end swing radius	I'		2830(9' 3")
Distance between tumblers	J		3650(12' 0")
Undercarriage length	K		4440(14' 7")
Undercarriage width	L		3190(10' 6")
Track gauge	M		2390(7' 10")
Track shoe width, standard	N		800(31' 5")
Travel speed(Low/high)		km/hr(mph)	3.4/5.3(2.1/3.3)
Swing speed		rpm	13.0
Gradeability		Degree(%)	35(70)
Ground pressure(800mm shoe)		kgf/cm ² (psi)	0.39(5.55)

3. WORKING RANGE

1) R245LR LONG REACH [8.2m(26' 11") BOOM]



29072SP08

Description		6.3m(20' 8") Arm
Max digging reach	A	15220(50' 0")
Max digging reach on ground	A'	15120(49' 7")
Max digging depth	B	11760(38' 7")
Max digging depth (8ft level)	B'	11650(38' 3")
Max vertical wall digging depth	C	9610(31' 6")
Max digging height	D	12550(41' 2")
Max dumping height	E	10280(33' 8")
Min swing radius	F	4870(16' 0")
Bucket digging force	SAE	72.6 kN
		7400 kgf
		16310 lbf
	ISO	83.4 kN
		8500 kgf
		18740 lbf
Arm crowd force	SAE	49.0 kN
		5000 kgf
		11020 lbf
	ISO	50.0 kN
		5100 kgf
		11240 lbf

4. WEIGHT

1) R245LR LONG REACH











Item	R245LR LONG REACH	
	kg	lb
Upperstructure assembly	8950	19730
Main frame weld assembly	1720	3790
Engine assembly	530	1170
Main pump assembly	120	265
Main control valve assembly	200	440
Swing motor assembly	190	420
Hydraulic oil tank assembly	240	530
Fuel tank assembly	195	430
Counterweight	5300	11680
Cab assembly	310	680
Lower chassis assembly	8700	19180
Track frame weld assembly	2720	6000
Swing bearing	260	570
Travel motor assembly	305	670
Turning joint	55	120
Track recoil spring	140	310
Idler	170	370
Carrier roller	20	45
Track roller	50	110
Track-chain assembly(800mm standard triple grouser shoe)	1660	3660
Front attachment assembly(8.2m boom, 6.3m arm, 0.52m³ SAE heaped bucket)	5882	13070
8.2m boom assembly	2124	4720
6.3m arm assembly	1208	2685
0.52m³ SAE heaped bucket	510	1133
Boom cylinder assembly	180	400
Arm cylinder assembly	270	600
Bucket cylinder assembly	130	290
Bucket control rod assembly	170	370

5. LIFTING CAPACITIES

1) R245LR LONG REACH

(1) 8.2m(26' 11") boom, 6.3m(20' 8") arm equipped with 0.52m³(SAE heaped) bucket, 800mm(32") triple grouser shoe and 5300kg counterweight.

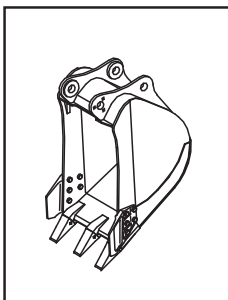
-  : Rating over-front
-  : Rating over-side or 360 degree

Load point height		Load radius								At max. reach		
		3.0m(10ft)		6.0m(20ft)		9.0m(30ft)		12.0m(40ft)		Capacity		Reach
												m(ft)
9.0m (30ft)	kg lb							*830 *1830	*830 *1830	*1330 *2930	*1330 *2930	13.11 (43.0)
6.0m (20ft)	kg lb							*1430 *3150	*1430 *3150	*1410 *3110	1160 2560	14.37 (47.1)
3.0m (10ft)	kg lb					*1990 *4390	*1990 *4390	*1670 *3680	1630 3590	*1520 *3350	980 2160	14.89 (48.9)
Ground Line	kg lb	*4560 *10050	*4560 *10050	*4330 *9550	*4330 *9550	*2650 *5840	2430 5360	*1980 *4370	1440 3170	*1670 *3680	930 2050	14.75 (48.4)
-3.0m (-10ft)	kg lb	*5710 *12590	*5710 *12590	*5250 *11570	3920 8640	*3150 *6940	2140 4720	*2220 *4890	1310 2890	*1860 *4100	1020 2250	13.92 (45.7)
-6.0m (-20ft)	kg lb	*7790 *17170	*7790 *17170	*5370 *11840	3840 8470	*3280 *7230	2060 4540			*2090 *4610	1330 2930	12.25 (40.2)
-9.0m (-30ft)	kg lb	*8780 *19360	*8780 *19360	*4510 *9940	4110 9060	*2620 *5780	2260 4980					

- 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.

6. BUCKET SELECTION GUIDE

1) GENERAL BUCKET



0.52m³ SAE
heaped bucket

Capacity		Width		Weight	Recommendation
SAE heaped	CECE heaped	Without side cutter	With side cutter		8.2m (26' 11") boom
					6.3m arm (20' 8")
0.52m³ (0.67yd³)	0.45m³ (0.59yd³)	700mm (27.6")	820mm (32.3")	570kg (1260lb)	

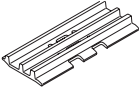
Applicable for materials with density of 2000kgf/m³ (3370lbf/yd³) or less

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		Triple grouser			
						
R245LR LONG REACH	Shoe width	mm(in)	-	-	800(32)	-
	Operating weight	kg(lb)	-	-	24500(54000)	-
	Ground pressure	kgf/cm ² (psi)	-	-	0.39(5.55)	-
	Overall width	mm(ft-in)	-	-	3190(10' 6")	-

3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Carrier rollers	2EA
Track rollers	9EA
Track shoes	49EA

4) SELECTION OF TRACK SHOE

Suitable track shoes should be selected according to operating conditions.

Method of selecting shoes

Confirm the category from the list of applications in **table 2**, then use **table 1** to select the shoe. Wide shoes(Categories B and C) have limitations on applications. Before using wide shoes, check the precautions, then investigate and study the operating conditions to confirm if these shoes are suitable.

Select the narrowest shoe possible to meet the required flotation and ground pressure. Application of wider shoes than recommendations will cause unexpected problem such as bending of shoes, crack of link, breakage of pin, loosening of shoe bolts and the other various problems.

※ **Table 1**

Track shoe	Specification	Category
600mm triple grouser	Standard	A
700mm triple grouser	Option	B
800mm triple grouser	Option	C
900mm triple grouser	Option	C
800mm triple grouser(Long reach)	Standard	C

※ **Table 2**

Category	Applications	Precautions
A	Rocky ground, river beds, normal soil	<ul style="list-style-type: none"> • Travel at low speed on rough ground with large obstacles such as boulders or fallen trees
B	Normal soil, soft ground	<ul style="list-style-type: none"> • These shoes cannot be used on rough ground with large obstacles such as boulders or fallen trees • Travel at high speed only on flat ground • Travel slowly at low speed if it is impossible to avoid going over obstacles
C	Extremely soft ground (Swampy ground)	<ul style="list-style-type: none"> • Use the shoes only in the conditions that the machine sinks and it is impossible to use the shoes of category A or B • These shoes cannot be used on rough ground with large obstacles such as boulders or fallen trees • Travel at high speed only on flat ground • Travel slowly at low speed if it is impossible to avoid going over obstacles

8. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	6BT5.9C
Type	4-cycle turbocharged diesel engine, low emission
Cooling method	Water cooling
Number of cylinders and arrangement	6 cylinders, in-line
Firing order	1-5-3-6-2-4
Combustion chamber type	Direct injection type
Cylinder bore × stroke	102 × 120mm(4.02" × 4.72")
Piston displacement	5880cc(359cu in)
Compression ratio	17.3 : 1
Rated gross horse power(SAE J1995)	139Hp at 2000rpm(104kW at 2000rpm)
Maximum torque at 1500rpm	62.6kgf · m(453lbf · ft)
Engine oil quantity	17 l (4.49U.S. gal)
Dry weight	530kg(1168lb)
High idling speed	2180 + 50rpm
Low idling speed	1050 ± 100rpm
Rated fuel consumption	164.8g/Hp · hr at 1950rpm
Starting motor	(24V-4.5kW)
Alternator	Delco Remy (24V-50A)
Battery	2 × 12V × 100Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 113cc/rev
Maximum pressure	330kgf/cm ² (4694psi) [360kgf/cm ² (5120psi)]
Rated oil flow	2 × 220 l /min (58.1U.S. gpm/ 48.4U.K. gpm)
Rated speed	1950rpm

[] : Power boost

3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	10cc/rev
Maximum pressure	35kgf/cm ² (500psi)
Rated oil flow	19.5 l /min(5.2U.S. gpm/4.3U.K. gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	9 spools mono-block
Operating method	Hydraulic pilot system
Main relief valve pressure	330kgf/cm ² (4695psi) [360kgf/cm ² (5120psi)]
Overload relief valve pressure	390kgf/cm ² (5550psi)

[]: Pooer boost

5) SWING MOTOR

Item	Specification
Type	Two fixed displacement axial piston motor
Capacity	151cc/rev
Relief pressure	240kgf/cm ² (3414psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	59kgf · m(427lbf · ft)
Brake release pressure	33~50kgf/cm ² (470~711psi)
Reduction gear type	2 - stage planetary
Swing speed	11rpm

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	330kgf/cm ² (4695psi)
Reduction gear type	2-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	11kgf/cm ² (156psi)
Braking torque	49.3kgf · m(357lbf · ft)

7) REMOTE CONTROL VALVE

Item		Specification
Type		Pressure reducing type
Operating pressure	Minimum	6.5kgf/cm ² (92psi)
	Maximum	26kgf/cm ² (370psi)
Single operation stroke	Lever	61mm(2.4in)
	Pedal	123mm(4.84in)

8) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	ø 120 × ø 85 × 1290mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	ø 140 × ø 100 × 1510mm # ø 140 × ø 95 × 1460mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	ø 125 × ø 85 × 1055mm # ø 100 × ø 70 × 870mm
	Cushion	Extend only

※ **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.**

: LONG REACH

9) SHOE

Item		Width	Ground pressure	Link quantity	Overall width
R245LR LONG REACH	Standard	800mm(32")	0.42kgf/cm ² (5.97psi)	49	3190mm(10' 6")

10) BUCKET

Item		Capacity		Tooth quantity	Width	
		SAE heaped	CECE heaped		Without side cutter	With side cutter
R245LR	STD	0.52m ³ (0.67yd ³)	0.45m ³ (0.59yd ³)	3	700mm(27.6")	820mm(32.3")

9. RECOMMENDED OILS

Use only oils listed below or equivalent.

Do not mix different brand oil.

Service point	Kind of fluid	Capacity ℓ (U.S. gal)	Ambient temperature °C (°F)							
			-20 (-4)	-10 (14)	0 (32)	10 (50)	20 (68)	30 (86)	40 (104)	
Engine oil pan	Engine oil	17.0(4.49)					SAE 30			
			SAE 10W							
			SAE 10W-30							
				SAE 15W-40						
Swing drive	Gear oil	5.0(1.3)		SAE 85W-140						
Final drive		5.8 × 2 (1.5 × 2)								
Hydraulic tank	Hydraulic oil	Tank; 180(48)	ISO VG 32							
		System; 290(77)		ISO VG 46						
					ISO VG 68 LF					
Fuel tank	Diesel fuel	340(90)	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 water 50 : 50	35(9.2)		Ethylene glycol base permanent type						

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