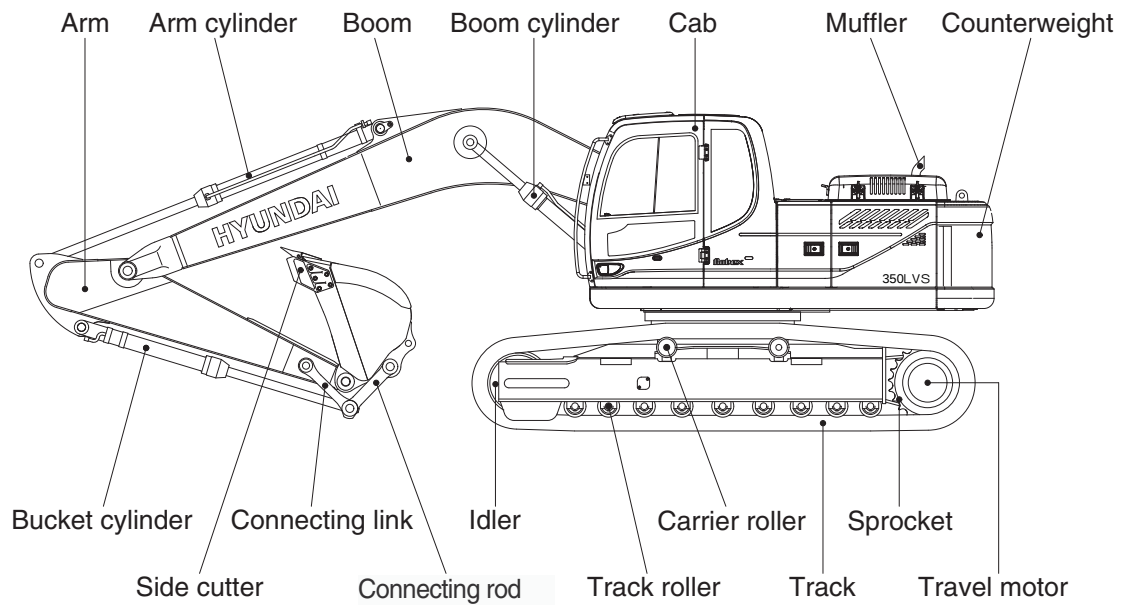
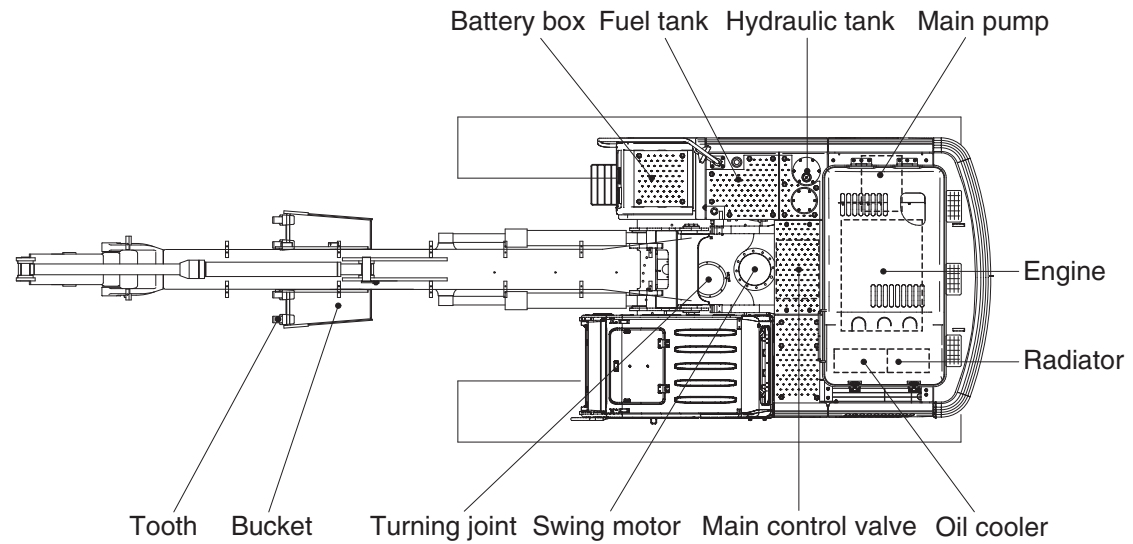


SPECIFICATIONS

1. MAJOR COMPONENT

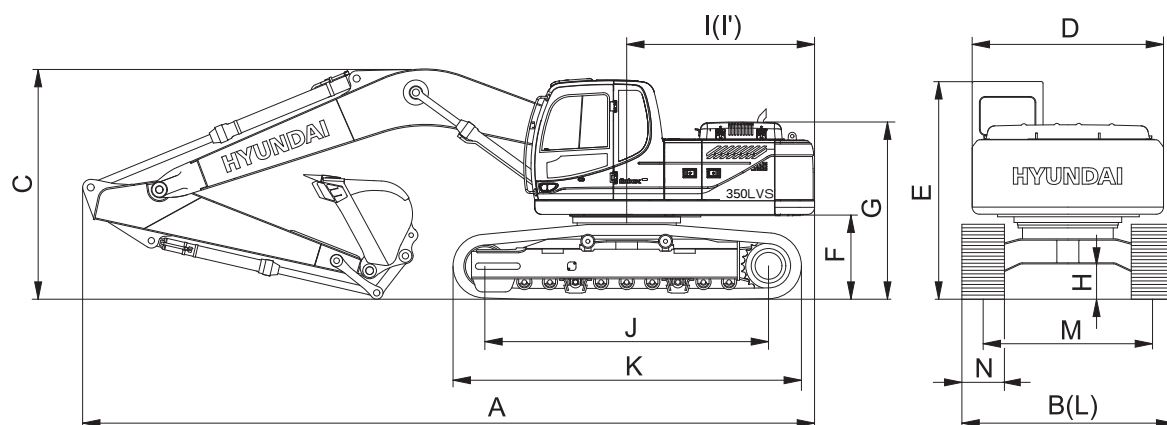


25092SP01

2. SPECIFICATIONS

1) R350LVS

· 6.45M(21'2")BOOM and 2.85M(9'4")ARM

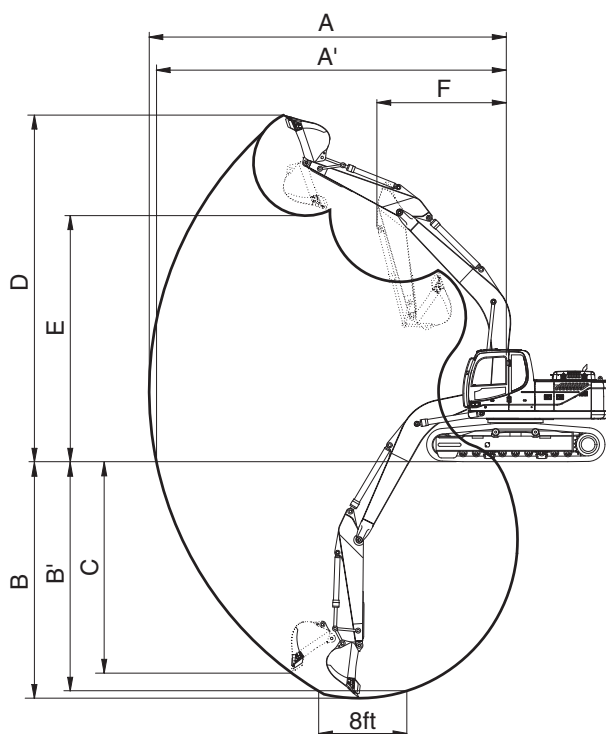


25092SP02

Description		Unit	Specification
Operating weight		kg (lb)	33200 (73190)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	1.6 (2.09)
Overall length	A	mm (ft-in)	10990 (36' 1")
Overall width, with 600mm shoe	B		3280 (10' 9")
Overall height	C		3460 (11' 4")
Superstructure width	D		2980 (9' 9")
Overall height of cab	E		3090 (10' 2")
Ground clearance of counterweight	F		1200 (3' 11")
Engine cover height	G		2580 (8' 6")
Minimum ground clearance	H		500 (1' 8")
Rear-end distance	I		3265 (10' 9")
Rear-end swing radius	I'		3330 (10' 11")
Distance between tumblers	J		4030 (13' 3")
Undercarriage length	K		4940 (16' 2")
Undercarriage width	L		3280 (10' 9")
Track gauge	M		2680 (8' 10")
Track shoe width, standard	N		600 (24")
Travel speed (low/high)		km/hr (mph)	3.3/5.5 (2.1/3.4)
Swing speed		rpm	9.2
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.64 (9.10)
Max traction force		kg (lb)	29500 (65040)

3. WORKING RANGE

1) R350LVS [6.45 m (21' 2") BOOM]



21092SP03

Description		2.85m (9' 4") Arm	※3.20m (10' 6") Arm	
Max digging reach	A	10920mm(35' 10")	11140mm(36' 7")	
Max digging reach on ground	A'	10710mm(35' 2")	10940mm(35' 11")	
Max digging depth	B	6970 mm (22' 10")	7370 mm (24' 2")	
Max digging depth (8 ft level)	B'	6800 mm (22' 4")	7210 mm (23' 8")	
Max vertical wall digging depth	C	6270 mm (20' 7")	6360 mm (20' 10")	
Max digging height	D	10540mm(34' 7")	10310mm(33' 10")	
Max dumping height	E	7380 mm (24' 3")	7240 mm (23' 9")	
Min swing radius	F	4520 mm (14' 10")	4470 mm (14' 8")	
Bucket digging force	SAE	189.3 [205.5] kN	189.3 [205.5] kN	
		19300 [20950] kgf	19300 [20950] kgf	
		42550 [46200] lbf	42550 [46200] lbf	
	ISO	211.8 [230.0] kN	211.8 [230.0] kN	
		21600 [23450] kgf	21600 [23450] kgf	
		47620 [51700] lbf	47620 [51700] lbf	
Arm digging force	SAE	151.5 [164.5] kN	143.2 [155.5] kN	
		15450 [16770] kgf	14600 [15850] kgf	
		34060 [36980] lbf	32190 [34950] lbf	
	ISO	156.9 [170.4] kN	147.1 [159.7] kN	
		16000 [17400] kgf	15000 [16290] kgf	
		35270 [38290] lbf	33070 [35900] lbf	

[] : Power boost ※ : STD

4. WEIGHT

1) R350LVS

Item	R350LVS	
	kg	lb
Upperstructure assembly	14310	31550
Main frame weld assembly	2963	6533
Engine assembly	920	2028
Main pump assembly	200	440
Main control valve assembly	220	490
Swing motor assembly	370	820
Hydraulic oil tank assembly	230	490
Fuel tank assembly	210	450
Counterweight	6200	13670
Cab assembly	310	680
Lower chassis assembly	11500	25770
Track frame weld assembly	3970	8750
Swing bearing	470	1036
Travel motor assembly	360	800
Turning joint	50	110
Track recoil spring	215.5	475
Idler	260	573
Carrier roller	35	77
Track roller	56.4	124
Track-chain assembly (600 mm standard triple grouser shoe)	1879	4142
Front attachment assembly (6.45 m boom, 2.85 m arm, 1.60 m³ SAE heaped bucket)	6560	144600
6.45m boom assembly	2705	5960
2.85 m arm assembly	1185	2610
1.60 m³ SAE heaped bucket	1530	3373
Boom cylinder assembly	300	660
Arm cylinder assembly	280	840
Bucket cylinder assembly	270	570
Bucket control rod assembly	370	820

5. LIFTING CAPACITIES

1) R350LVS

(1) 6.45 m (21' 2") boom, 2.85 m (9' 4") arm equipped with 1.60 m³ (SAE heaped) bucket and 600 mm (24") triple grouser shoe.

•  : Rating over-front

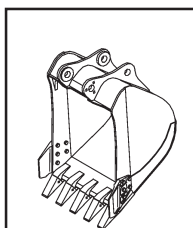
•  : Rating over-side or 360 degree

load point height	load radius												At max.reach		
	1.5m(5.0ft)		3.0m(10.0ft)		4.5m(15.0ft)		6.0m(20.0ft)		7.5m(25.0ft)		9.0m(30.0ft)		capacity		Reach
															m(ft)
7.5m 25.0ft	kg lb								*4970 *10960	*4970 *10960			*5960 *13140	4240 9350	8.79 (28.8)
6.0m 20.0ft	kg lb								*6520 *14370	5720 12610			5630 12410	3430 7560	9.59 (31.5)
4.5m 15.0ft	kg lb						*8220 *18120	8190 18060	*7160 *15790	5480 12080	*4900 *10800	3780 8330	5020 11070	2990 6590	10.07 (33.0)
3.0m 10.0ft	kg lb				*13810 *30450	12010 26480	*9880 *21780	7570 16690	*8040 *17730	5170 11400	6040 13320	3640 8020	4730 10430	2770 6110	10.29 (33.8)
1.5m 5.0ft	kg lb				*16510 *36400	10990 24230	*11400 *25130	7030 15500	8050 17750	4870 10740	5880 12960	3500 7720	4690 10340	2720 6000	10.25 (33.6)
Ground Line	kg lb				*17640 *38890	10560 23280	11320 24960	6680 14730	7820 17240	4660 10270	5770 12720	3390 7470	4910 10820	2860 6310	9.95 (32.6)
-1.5m (-5.0ft)	kg lb		*14480 *31920	*14480 *31920	*17580 *38760	10490 23130	11170 24630	6550 14440	7710 17000	4560 10050			5460 12040	3210 7080	9.38 (30.8)
-3.0m (-10.0ft)	kg lb	*16240 *35800	*16240 *35800	*20510 *45220	*20510 *45220	*16540 *36460	10640 23460	11220 24740	6590 14530	7760 17110	4610 10160		6600 14550	3970 8750	8.45 (27.7)
-4.5m (-15.0ft)	kg lb			*19900 *43870	*19900 *43870	*14270 *31460	10990 24230	*10490 *23130	6840 15080				*6760 *14900	5710 12590	7.01 (23.0)

- 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 (standard equipment) located on the back of the bucket.
 4. *indicates load limited by hydraulic capacity.

6. BUCKET SELECTION GUIDE

1) GENERAL BUCKET



※1.60m³SAE
heaped bucket

Capacity		Width		Weight	Recommendation	
					6.45 m boom	
SAE heaped	CECE heaped	Without side cutter	Without side cutter		2.85m arm	
1.60m ³ (2.09yd ³)	1.40m ³ (1.63yd ³)	1535mm (55.7in)		1530kg (3370lb)		

※ : Standard bucket

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

Applicable for materials with density of 1600 kgf/m³ (2700 lbf/yd³) or less

Applicable for materials with density of 1100 kgf/m³ (1850 lbf/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		Tirper grouser			
						
R350LVS	Show width	mm(in)	600(24)	700(28)	800(32)	900(36)
	Oper weight	kg(lb)	33200(73190)	33800(74520)	34200(75400)	34600(76280)
	Ground pre	kgf/cm ² (psi)	0.64(9.10)	0.56(7.96)	0.49(6.97)	0.44(6.26)
	Overall width	mm(ft-in)	3280(10'9")	3380(11'1")	3480(11'5")	3580(11'9")

3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity	
	R350LVS	
Carrier rollers	2 EA	
Track rollers	9 EA	
Track shoes	48 EA	

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
700mm double grouser ★1	Option	B
800mm triple grouser	Option	C
900mm triple grouser	Option	C

★1 : R250LC-9 HIGH WALKER ONLY

※ Table 2

Category	Applications	Precautions
A	Rocky ground, river beds, normal soil	Travel at low speed on rough ground with large obstacles such as boulders or fallen trees
B	Normal soil, soft ground	- 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)	- 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	Cummins QSL/HCEC HE 8.9
Type	4-cycle turbocharged, charger air cooled diesel engine
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	114 × 145 mm (4.49× 5.7")
Piston displacement	8900 cc (540cu in)
Compression ratio	17.8 : 1
Rated gross horse power (SAE J1995)	296 Hp at 1850 rpm (221 kW at 1850 rpm)
Maximum torque	148 kgf · m (1070 lbf · ft) at 1400 rpm
Engine oil quantity	31.7 l (8.4 U.S. gal)
Dry weight	740 kg (1630 lb)
High idling speed	1700+ 50 rpm
Low idling speed	800 ± 100 rpm
Rated fuel consumption	164.8 g/Hp · hr at 1850 rpm
Starting motor	(24V-7.5 kW)
Alternator	Delco Remy 24V-90A
Battery	2 × 12V × 160 Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 175 cc/rev
Maximum pressure	350 kgf/cm ² (4980 psi) [380 kgf/cm ² (5400 psi)]
Rated oil flow	2 × 315 l /min (83.2U.S. gpm/ 69.3 U.K. gpm)
Rated speed	1850 rpm

[] : Power boost

3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	15 cc/rev
Maximum pressure	40 kgf/cm ² (570 psi)
Rated oil flow	27 l /min (7.10U.S. gpm / 5.90 U.K. gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	1000
Operating method	Hydraulic pilot system
Main relief valve pressure	350 kgf/cm ² (4980 psi) [380 kgf/cm ² (5400 psi)]
Overload relief valve pressure	400 kgf/cm ² (5690 psi)

[] : Power boost

5) SWING MOTOR

Item	Specification
Type	Axial piston motor
Capacity	156.9 cc/rev
Relief pressure	300 kgf/cm ² (4270 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	2143kgf · m (15500lbf · ft)
Brake release pressure	22.2 kgf/cm ² (316 psi)
Reduction gear type	2 - stage planetary

6) TRAVEL MOTOR

Item	Specification
Type	Axial piston motor
Relief pressure	350 kgf/cm ² (4980 psi)
Capacity (max / min)	156.9/282.6 cc/rev
Reduction gear type	Planetary differential
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	17 kgf/cm ² (242 psi)
Braking torque	5356 kgf · m (38740lbf · ft)

7) REMOTE CONTROL VALVE

Item		Specification
Type		Pressure reducing type
Operating pressure	Minimum	6.5 kgf/cm ² (92 psi)
	Maximum	26 kgf/cm ² (370 psi)
Single operation stroke	Lever	61 mm (2.4")
	Pedal	123 mm (4.8")

8) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	ø 150 × ø105 × 1480 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	ø 160 × ø 110 × 1685 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	ø 140 × ø100 × 1285 mm
	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.

9) SHOE

Item		Width	Ground pressure	Link quantity	Overall width
R350LVS	Standard	600 mm (24")	0.64 kgf/cm ² (9.10 psi)	48	3280 mm (10' 9")
	Option	700 mm (28")	0.56 kgf/cm ² (7.96 psi)	48	3380 mm (11' 1")
		800 mm (32")	0.49 kgf/cm ² (6.97 psi)	48	3480 mm (11' 5")
		900 mm (36")	0.44 kgf/cm ² (6.26 psi)	48	3580 mm (11' 9")

10) BUCKET

Item		Capacity m ³ (yd ³)		Tooth quantity	Width mm (in)	
		SAE heaped	CECE heaped		Without side cutter	With side cutter
R350LVS	Standard	1.60(2.09)	1.40(1.83)	5	1535(60.4)	
	Option	1.44(1.88)	1.25(1.63)	5	1415(55.7)	

⊙ : Rock bucket (heavy)

9. RECOMMENDED OILS

Use only oils listed below. Do not mix different brand oil.

Please use HYUNDAI genuine oil and grease.

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	31.7 (8.4)	SAE 5W-40								
								SAE 30			
				SAE 10W							
				SAE 10W-30							
				SAE 15W-40							
Swing drive	Gear oil	11(2.9)			SAE 80W-90						
Final drive		7.8×2 (2.1×2)			SAE 85W-140						
Hydraulic tank	Hydraulic oil	Tank; 190 (50)	ISO VG 15								
				ISO VG 32							
		System; 330 (87)			ISO VG 46						
						ISO VG 68					
Fuel tank	Diesel fuel	560(148)	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★ ¹	50 (13.2)		Ethylene glycol base permanent type (50 : 50)							

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