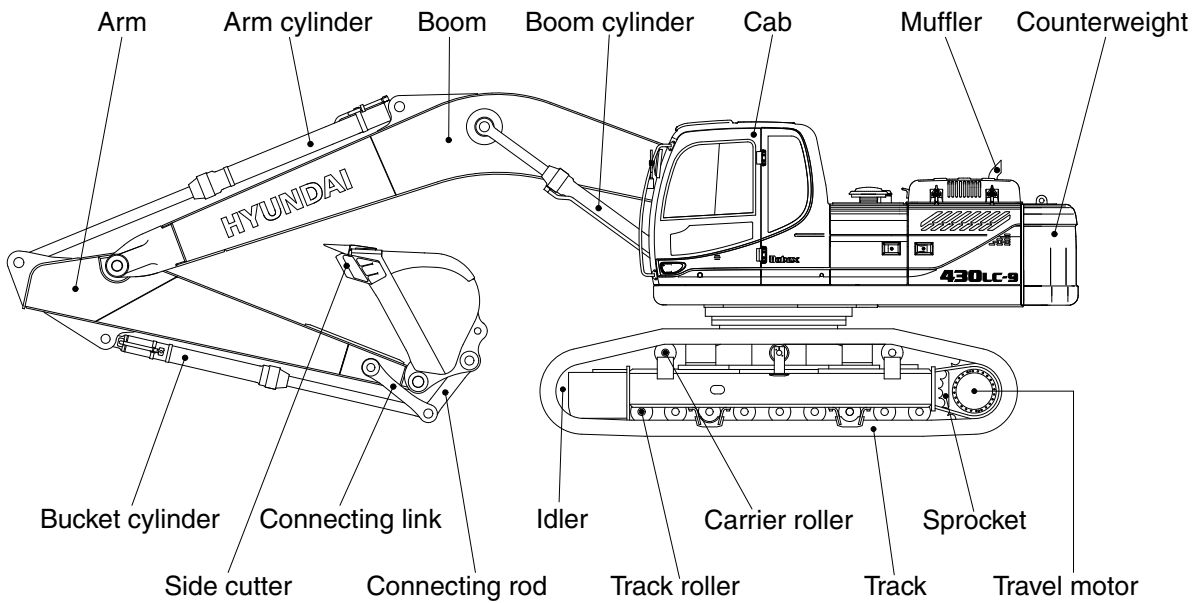
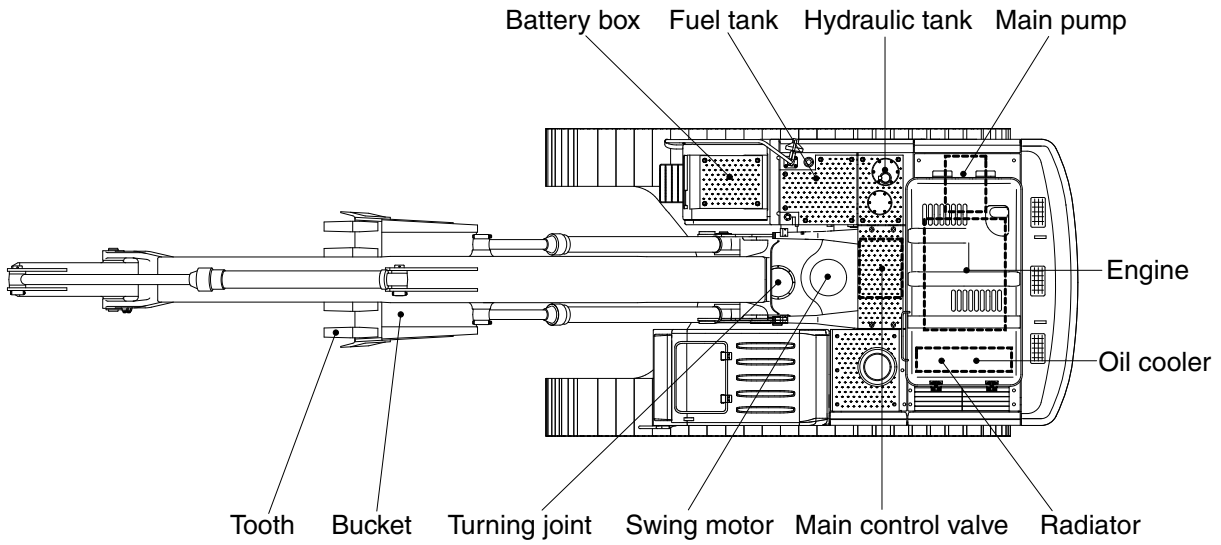


GROUP 2 SPECIFICATIONS

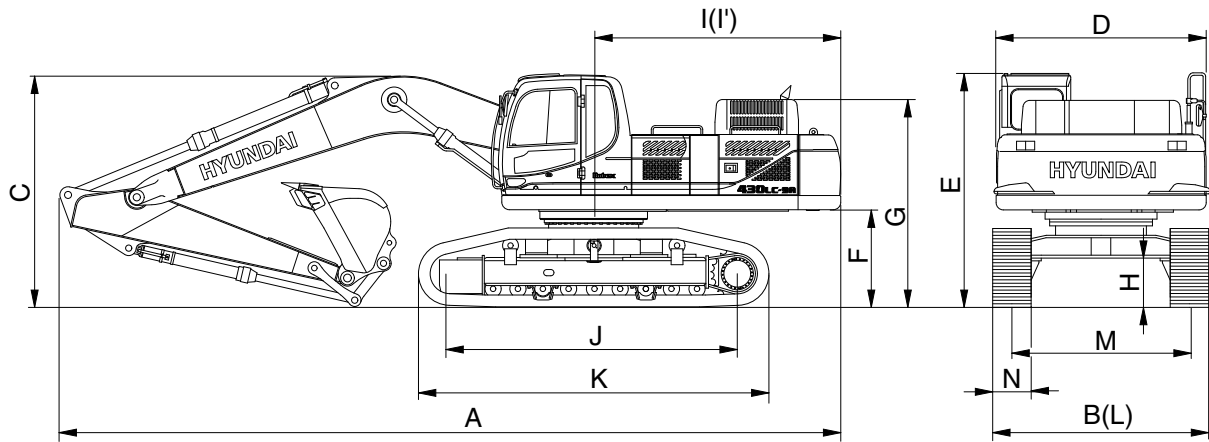
1. MAJOR COMPONENT



43092SP01

2. SPECIFICATIONS

- 6.5 m (21' 4") BOOM and 2.6 m (8' 6") ARM

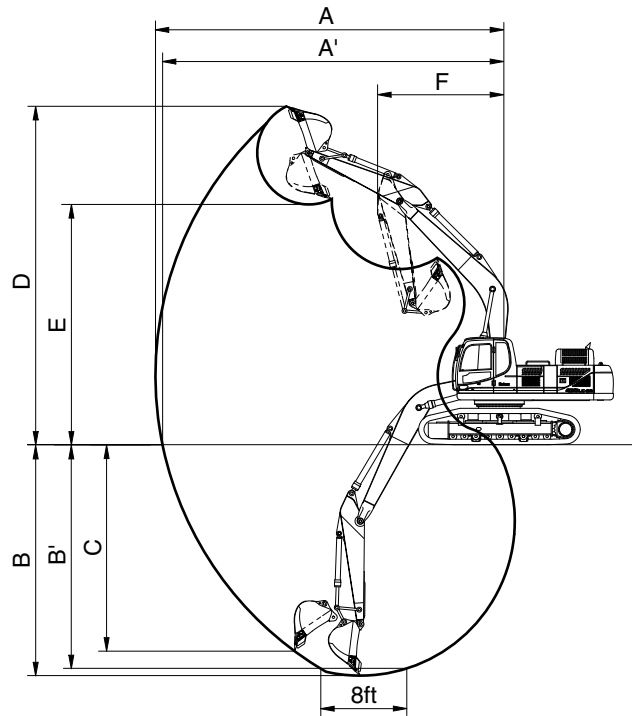


43092SP02

Description		Unit	Specification
Operating weight		kg (lb)	42600 (93920)
Bucket capacity (SAE heaped), standard		m ³ (yd ³)	2.1 (2.75)
Overall length	A	mm (ft-in)	11240 (36' 11")
Overall width, with 600 mm shoe	B		3340 (10' 11")
Overall height	C		3780 (12' 5")
Superstructure width	D		2980 (9' 9")
Overall height of cab	E		3180 (10' 5")
Ground clearance of counterweight	F		1295 (4' 3")
Engine cover height	G		2795 (9' 2")
Minimum ground clearance	H		555 (1' 10")
Rear-end distance	I		3505 (11' 6")
Rear-end swing radius	I'		3560 (11' 8")
Distance between tumblers	J		4470 (14' 8")
Undercarriage length	K		5462 (17' 11")
Undercarriage width	L		3340 (11' 0")
Track gauge	M		2740 (9' 0")
Track shoe width, standard	N		600 (24")
Travel speed (low/high)		km/hr (mph)	3.1/5.5 (1.9/3.5)
Swing speed		rpm	9.6
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm ² (psi)	0.74 (10.52)
Max traction force		kg (lb)	34000 (74960)

3. WORKING RANGE

· 6.5 m (21' 4") BOOM



4309A2SP03

Description		2.6 m (8' 6") Arm
Max digging reach	A	10810 mm (35' 6")
Max digging reach on ground	A'	10580 mm (34' 9")
Max digging depth	B	6860 mm (22' 6")
Max digging depth (8ft level)	B'	6690 mm (21'11")
Max vertical wall digging depth	C	6000 mm (19' 8")
Max digging height	D	10710 mm (35' 2")
Max dumping height	E	7480 mm (24' 6")
Min swing radius	F	4530 mm (14'10")
Bucket digging force	SAE	200.2 [218.4] kN
		20410 [22270] kgf
		45000 [49090] lbf
	ISO	228.7 [249.5] kN
		23320 [25440] kgf
		51410 [56090] lbf
Arm crowd force	SAE	180.7 [197.2] kN
		18430 [20110] kgf
		40630 [44330] lbf
	ISO	188.0 [205.1] kN
		19170 [20910] kgf
		42260 [46100] lbf

[] : Power boost















4. WEIGHT

Item	R430LC-9A	
	kg	lb
Upperstructure assembly	16090	35470
Main frame weld assembly	3050	6720
Engine assembly	790	1740
Main pump assembly	190	420
Main control valve assembly (type 1)	340	750
Main control valve assembly (type 2)	420	930
Swing motor assembly	440	970
Hydraulic oil tank assembly	340	750
Fuel tank assembly	230	510
Counterweight	7500	16540
Cab assembly	490	1080
Lower chassis assembly	19600	43210
Track frame weld assembly	6430	14180
Swing bearing	590	1300
Travel motor assembly	620	1370
Turning joint	65	140
Track recoil spring	325	720
Idler	310	680
Carrier roller	40	90
Track roller	90	200
Track-chain assembly (600 mm standard triple grouser shoe)	2700	5950
Front attachment assembly (6.5 m boom, 2.6 m arm, 2.1 m ³ SAE heaped bucket)	8200	18080
6.5 m boom assembly	3050	6720
2.6 m arm assembly	1340	2950
2.1 m ³ SAE heaped bucket	2090	4610
Boom cylinder assembly	370	820
Arm cylinder assembly	490	1080
Bucket cylinder assembly	320	710
Bucket control linkage assembly	370	820

5. LIFTING CAPACITIES

1) 6.5 m (21' 4") boom, 2.6 m (8' 6") arm equipped with 2.10 m³ (SAE heaped) bucket and 600 mm (24") triple grouser shoe.

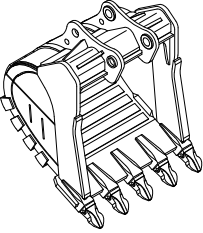
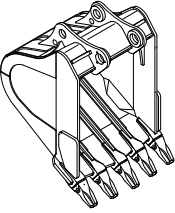
·  : Rating over-front ·  : Rating over-side or 360 degree

Load point height		Load radius												At max. reach			
		1.5 m (5.0 ft)		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		9.0 m (30.0 ft)		Capacity	Reach		
																m (ft)	
9.0 m (30 ft)	kg														*6020	*6020	7.12
	lb														*13270	*13270	(23.4)
7.5 m (25.0 ft)	kg														*5940	*5940	8.39
	lb														*13100	*13100	(27.5)
6.0 m (20.0 ft)	kg						*7070	*7070	*6570	*6570					*6020	4960	9.20
	lb						*15590	*15590	*14480	*14480					*13270	10930	(30.2)
4.5 m (15.0 ft)	kg				*10890	*10890	*8400	*8400	*7190	*7190					*6170	4340	9.69
	lb				*24010	*24010	*18520	*18520	*15850	*15850					*13600	9570	(31.8)
3.0 m (10.0 ft)	kg				*14190	*14190	*9990	*9990	*8020	6970	*5280	4940	*6370	4040	9.90		
	lb				*31280	*31280	*22020	*22020	*17680	15370	*11640	10890	*14040	8910	(32.5)		
1.5 m (5.0 ft)	kg				*16530	14990	*11390	9570	*8820	6650	*6160	4800	*6600	3990	9.85		
	lb				*36440	33050	*25110	21100	*19440	14660	*13580	10580	*14550	8800	(32.3)		
Ground Line	kg				*17350	14580	*12240	9210	*9360	6430			*6850	4200	9.55		
	lb				*38250	32140	*26980	20300	*20640	14180			*15100	9260	(31.3)		
-1.5 m (-5.0 ft)	kg			*18300	*18300	*17100	14550	*12400	9080	*9440	6350			*7060	4750	8.95	
	lb			*40340	*40340	*37700	32080	*27340	20020	*20810	14000			*15560	10470	(29.4)	
-3.0 m (-10.0 ft)	kg	*20700	*20700	*22350	*22350	*15190	14750	*11730	9160					*7110	5920	8.00	
	lb	*45640	*45640	*49270	*49270	*35080	32520	*25860	20190					*15670	13050	(26.2)	
-4.5 m (-15.0 ft)	kg			*18450	*18450	*13360	*13360	*9560	9530					*6560	*6560	6.49	
	lb			*40680	*40680	*29450	*29450	*21080	21010					*14460	*14460	(21.3)	

- 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) ROCK-HEAVY DUTY

	
2.10 m ³ SAE heaped bucket	1.90 m ³ SAE heaped bucket

Capacity		Width		Weight	Recommendation	
					6.5 m (21' 4") boom	
SAE heaped	CECE heaped	Without side cutter	With side cutter		2.6 m arm (8' 6")	3.2 m arm (10' 6")
1.90 m ³ (2.49 yd ³)	1.65 m ³ (2.16 yd ³)	1670 mm (65.7")	-	1990 kg (4390 lb)		
2.10 m ³ (2.75 yd ³)	1.84 m ³ (2.41 yd ³)	1800 mm (70.9")	-	2090 kg (4610 lb)		

Applicable for materials with density of 2000 kg/m³ (3370 lb/yd³) or less

Applicable for materials with density of 1600 kg/m³ (2700 lb/yd³) or less

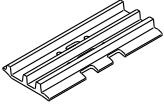
Applicable for materials with density of 1100 kg/m³ (1850 lb/yd³) or less

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				
							
R430LC-9A	Shoe width	mm (in)	600 (24)	700 (28)	750 (30)	800 (32)	900 (36)
	Operating weight	kg (lb)	42600 (93920)	43140 (95110)	43410 (95700)	43680 (96300)	44220 (97490)
	Ground pressure	kgf/cm ² (psi)	0.74 (10.52)	0.64 (9.10)	0.60 (8.53)	0.57 (8.11)	0.51 (7.25)
	Overall width	mm (ft-in)	3340 (10' 11")	3440 (11' 3")	3490 (11' 5")	3540 (11' 7")	3640 (11' 11")

3) NUMBER OF ROLLERS AND SHOES ON EACH SIDE

Item	Quantity
Carrier rollers	2 EA
Track rollers	9 EA
Track shoes	53 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
600 mm triple grouser	Standard	A
700 mm triple grouser	Option	B
750 mm triple grouser	Option	B
800 mm triple grouser	Option	C
900 mm triple grouser	Option	C

※ **Table 2**

Category	Applications	Applications
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	Cummins QSL9
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" × 5.69")
Piston displacement	8900 cc (543 cu in)
Compression ratio	17.8 : 1
Rated gross horse power (SAE J1995)	310 Hp at 1650 rpm (231 kW at 1650 rpm)
Maximum torque	148 kgf · m (1070 lbf · ft) at 1400 rpm
Engine oil quantity	30 l (7.9 U.S. gal)
Wet weight	708 kg (1560 lb)
Low idling speed	800 ± 100 rpm
High idling speed	1700 + 50 rpm
Rated fuel consumption	161.5 g/Hp · hr at 1650 rpm
Starting motor	Denso (24V-7.8 kW)
Alternator	Denso 24V-95A
Battery	2 × 12V × 160Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 185 cc/rev
Maximum pressure	330 kgf/cm ² (4690 psi) [360 kgf/cm ² (5120 psi)]
Rated oil flow	2 × 315 l/min (83.2 U.S. gpm / 69.3 U.K. gpm)
Rated speed	1700 rpm

[] : Power boost

3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	15cc/rev
Maximum pressure	40 kgf/cm ² (570 psi)
Rated oil flow	25.5 ℓ /min (6.7 U.S. gpm/5.6 U.K. gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	9 spools
Operating method	Hydraulic pilot system
Main relief valve pressure	330 kgf/cm ² (4690 psi) [360 kgf/cm ² (5120 psi)]
Overload relief valve pressure	390 kgf/cm ² (5550 psi)

[] : Power boost

5) SWING MOTOR

Item	Specification
Type	Axial piston motor
Capacity	250 cc/rev
Relief pressure	290 kgf/cm ² (4120 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	107 kgf · m (773 lbf · ft)
Brake release pressure	30~50 kgf/cm ² (427~711 psi)
Reduction gear type	2 - stage planetary

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	360 kgf/cm ² (5120 psi)
Capacity (max / min)	282.6/160.8 cc/rev
Reduction gear type	2-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	15.3 kgf/cm ² (218 psi)
Braking torque	120 kgf · m (868 lbf · ft)

7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	∅ 160 × ∅ 110 × 1500 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	∅ 170 × ∅ 120 × 1760 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	∅ 150 × ∅ 105 × 1295 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.

8) SHOE

Item		Width	Ground pressure	Link quantity	Overall width
R430LC-9A	Standard	600 mm (24")	0.74 kgf/cm ² (10.52 psi)	53	3340 mm (10' 11")
	Option	700 mm (28")	0.64 kgf/cm ² (9.10 psi)	53	3440 mm (11' 3")
		750 mm (30")	0.60 kgf/cm ² (8.53 psi)	53	3490 mm (11' 5")
		800 mm (32")	0.57 kgf/cm ² (8.11 psi)	53	3540 mm (11' 7")
		900 mm (36")	0.51 kgf/cm ² (7.25 psi)	53	3640 mm (11' 11")

9) BUCKET

Item		Capacity		Tooth quantity	Width	
		SAE heaped	CECE heaped		Without side cutter	With side cutter
R430LC-9A	Standard	◎2.10 m ³ (2.75 yd ³)	1.84 m ³ (2.41 yd ³)	5	1800 mm (70.9")	-
	Option	◎1.90 m ³ (2.49 yd ³)	1.65 m ³ (2.16 yd ³)	5	1670 mm (65.7")	-

◎ : Rock - heavy duty bucket

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)
Engine oil pan	Engine oil	30 (7.9)	★SAE 5W-40						
			SAE 30						
			SAE 10W						
			SAE 10W-30						
			SAE 15W-40						
Swing drive	Gear oil	8.0 (2.1)	★SAE 75W-90						
Final drive		12×2 (3.2×2)	SAE 80W-90						
Hydraulic tank	Hydraulic oil	Tank : 210 (55.5) System : 410 (108.3)	★ISO VG 15						
			ISO VG 32						
			ISO VG 46						
			ISO VG 68						
Fuel tank	Diesel fuel★1	550 (145.3)	★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	45 (13.7)	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