Specifications R25Z-9AK

ENGINE

MODEL		KUBOTA D1305	
Туре		4 Cycle Diesel engine, in line, water cooled	
Rated flywheel horse power			
SAE	J1995 (gross)	24.9 HP (18.5 kW) / 2,350 rpm	
	J1349 (net)	23.2 HP (17.3 kW) / 2,350 rpm	
DIN	6271/1 (gross)	25.2 PS (18.5 kW) / 2,350 rpm	
	6271/1 (net)	23.5 PS (17.3 kW) / 2,350 rpm	
Max. torque		8.3 kgf.m (60.17 lbf.ft) / 1,600 rpm	
Bore x stroke		78 mm x 88 mm (3.07" x 3.46")	
Piston displacement		1,261 cc (76.9 in ³)	
Batteries		12 V - 80 Ah	
Starting motor		12 V - 1.4 kW	
Alternator		12 V - 40 A	

HYDRAULIC SYSTEM

MAIN PUMP		
Туре	Variable displacement piston pumps	
Max. flow	2 x 27.6 + 19.6 ℓ/min	
Sub-pump for pilot circuit	Gear pump	
HYDRAULIC MOTORS		
Travel	Two speed axial piston motor with counter balance valve and parking brake	
Swing	Axial piston motor with automatic brake	
RELIEF VALVE SETTING		
Implement circuits	220 Kgf/cm ² (3,130 psi)	
Travel circuit	220 Kgf/cm ² (3,130 psi)	
Swing circuit	175 Kgf/cm² (2,489 psi)	
Pilot circuit	30 Kgf/cm² (430 psi)	
Service valve	Installed	

HYDRAULIC CYLINDERS

No. of cylinder- bore x stroke		
Boom	75 x 565 mm (3.0" x 22.2")	
Arm	70 x 500 mm (2.8" x 19.7")	
Bucket	55 x 420 mm (2.16" x 16.5")	
Boom swing	75 x 400 mm (3.0" x 15.7")	
Dozer blade	85 x 140 mm (3.3" x 5.5")	

OPERATOR'S CAB

Noise Levels (dynamic value)	
Outside cabin - LwA	94dB
Inside cabin - LpA	75dB

COOLANT & LUBRICANT CAPACITY

	liter	US gal	UK gal
Fuel tank	30	7.9	6.6
Engine coolant	5.0	1.3	1.0
Engine oil	5.9	1.6	1.3
Hydraulic tank	27	7.1	5.9

TRAVEL LEVERS

 $Traveling\ and\ steering: Two\ levers\ with\ foldable\ pedals.$

HYDRAULIC CONTROLS

Туре	
Pilot control	Two joysticks with one safety lever (LH): Swing and arm, (RH): Boom and bucket with horn (ISO)
Engine throttle	Mechanical, cable type

SWING SYSTEM

Swing motor	Axial piston motor
Swing reduction	Planetary gear reduction
Swing bearing lubrication	Grease-bathed
Swing brake	Wet disc
Swing speed	9.1 rpm

DRIVES & BRAKES

Max. travel speed (high) / (low)	4.3 km/h / 2.4 km/h ((2.7 mph) / (1.6 mph))
Maximum traction force	2.4 ton
Maximum gradeability	30°
Parking brake	Wet disc

DIGGING FORCE (ISO)

	2,150 kgf
Bucket	21.1 kN
	4,740 lbf
	1,490 [1,310] kgf
Arm [Long Arm]	14.6 [12.8] kN
	3,280 [2,890] lbf

OPERATING WEIGHT (APPROXIMATE)

Operating weight, including 1,945 mm (6'5") boom, 1,120 mm (3'8") arm, SAE heaped 0.07 m³ (0.1 yd³) excavator bucket, lubricant, coolant, full fuel tank, full hydraulic tank and all standard equipments.

Shoe Width		Rubber shoe 250 mm (10")
On avating Waight	Cabin	2,580 kg (5,690 lb)
Operating Weight	Canopy	2,430 kg (5,360 lb)
Ground Pressure	Cabin	0.32 kg/cm ² (4.6 psi)
Ground Pressure	Canopy	0.30 kg/cm ² (4.34 psi)

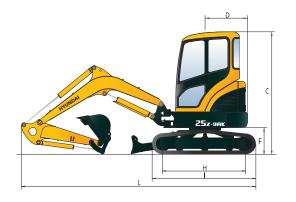
UNDERCARRIAGE

X-leg type center frame is integrally welded with reinforced box-section track frames. The undercarriage includes lubricated rollers, track adjusters with shock absorbing springs and sprockets and rubber shoes.

Center frame	X-leg type
Track frame	Pentagonal box type
No. of carrier roller on each side	1
No. of track roller on each side	3

Dimensions & Working Ranges

DIMENSIONS R25Z-9AK





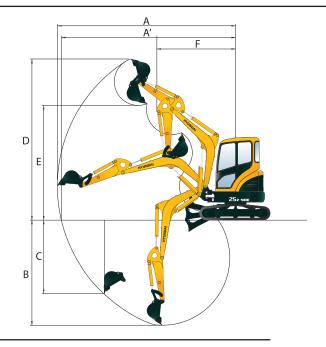
 $mm \, (\text{ft} \cdot \text{in})$

Overall width of upper structure	1,485 (4′10″)
Overall width of cab	1,050 (3′ 5″)
Overall height of cab	2,500 (8′ 2″)
Tail swing radius - standard counterweight	775 (2′ 7″)
Tail swing radius - additional counterweight	875 (2′10″)
Overall width	1,500 (4′11″)
Clearance under counterweight	510 (1'67")
	Overall width of upper structure Overall width of cab Overall height of cab Tail swing radius - standard counterweight Tail swing radius - additional counterweight Overall width Clearance under counterweight

G Ground clearance	290 (11")
H Tumbler distance	1,490 (4'11")
I Track length	1,910 (6′3″)
J Track gauge	1,250 (4′1″)
K Track shoe width	250 (10")
L Overall length - Standard Arm	4,030 (13′3″)
Overall length - Long Arm	4,100 (13'5")

WORKING RANGES R25Z-9AK

 $mm \, (ft \cdot in)$



	Boom length	1,945 (6′5″)
	Arm length	1,120 (3′8″) *1,350 (4′5″)
А	Max. digging reach	4,480 (14′8″) *4,680 (15′4″)
A′	Max. digging reach on ground	4,340 (14′3″) *4,540 (14′11″)
В	Max. digging depth	2,420 (7′11″) *2,645 (8′8″)
С	Max. vertical wall digging depth	1,460 (4′9″) *1,605 (5′3″)
D	Max. digging height	4,150 (13′7″) *4,235 (13′11″)
E	Max. dumping height	2,930 (9′7″) *3,030 (9′11″)
F	Min. front swing radius	1,980 (6′6″) *1,970 (6′6″)

^{*} Long arm

Lifting Capacities

R25Z-9AK

Rating over-front Rating over-side or 360 degrees

Boom: 1.945 m (6'5") / Arm: 1.12 m (3'8") / Bucket: 0.07 m³ (0.01 yd³) SAE heaped / Dozer Down / 250 mm (9.8") Rubber track / Cabin Type / Standard counterweight												
				At max. reach								
Load point height m (ft)		2.0 m	n(5 ft)	2.5 m	2.5 m(10 ft)		3.0 m(10 ft)		(10 ft)	Capa	Reach	
												m (ft)
3.5 m	kg									*560	450	3.07
10 ft	lb									*1230	990	(10.1)
3.0 m	kg					*590	460			*570	340	3.59
10 ft	lb					*1300	1010			*1260	750	(11.8)
2.5 m	kg					*590	460	*600	350	*590	290	3.92
10 ft	lb					*1300	1010	*1320	770	*1300	640	(12.9)
2.0 m	kg			*670	610	*650	450	*650	350	*600	260	4.13
5 ft	lb			*1480	1340	*1430	990	*1430	770	*1320	570	(13.5)
1.5 m	kg	*1180	860	*890	590	*770	440	*700	340	*620	240	4.24
5 ft	lb	*2600	1900	*1960	1300	*1700	970	*1540	750	*1370	530	(13.9)
1.0 m	kg	*1760	800	*1150	560	*900	420	*770	330	*640	240	4.26
5 ft	lb	*3880	1760	*2540	1230	*1980	930	*1700	730	*1410	530	(14.0)
0.5 m	kg	*1750	770	*1340	540	*1010	410	*830	320	*660	240	4.19
0 ft	lb	*3860	1700	*2950	1190	*2230	900	*1830	710	*1460	530	(13.7)
Ground Line	kg	*1990	760	*1430	530	*1070	400	*850	320	*680	260	4.04
Ground Line	lb	*4390	1680	*3150	1170	*2360	880	*1870	710	*1500	570	(13.3)
-0.5 m	kg	*2030	760	*1420	530	*1060	400	*820	320	*690	290	3.78
-0 ft	lb	*4480	1680	*3130	1170	*2340	880	*1810	710	*1520	640	(12.4)
-1.0 m	kg	*1810	770	*1290	530	*960	400			*690	350	3.36
-5 ft	lb	*3990	1700	*2840	1170	*2120	880			*1520	770	(11.0)
-1.5 m	kg	*1410	780	*990	540					*610	500	2.67
-5 ft	lb	*3110	1720	*2180	1190					*1340	1100	(8.8)
-2.5 m	kg									*480	370	3.38
-10 ft	lb									*1060	820	(11.1)

300m: 1.945 m (6′5″) / Arm: 1.12 m (3′8″) / Bucket: 0.07 m³ (0.01 yd³) SAE heaped / Dozer Up / 250 mm (9.8″) Rubber track / Cabin Type / Standard counterweight												
				At max. reach								
Load point		2.0 m	n(5 ft)	2.5 m	(10 ft)	3.0 m	(10 ft)	3.5 m	(10 ft)	Capa	Reach	
height m (ft)												m (ft)
3.5 m	kg									440	440	3.07
10 ft	lb									970	970	(10.1)
3.0 m	kg					450	450			330	330	3.59
10 ft	lb					990	990			730	730	(11.8)
2.5 m	kg					450	450	340	340	280	280	3.92
10 ft	lb					990	990	750	750	620	620	(12.9)
2 <u>.</u> 0 m	kg			610	600	450	440	340	340	250	250	4.13
5 ft	lb			1340	1320	990	970	750	750	550	550	(13.5)
1.5 m	kg	870	840	590	580	430	430	330	330	240	240	4.24
5 ft	lb	1920	1850	1300	1280	950	950	730	730	530	530	(13.9)
1.0 m	kg	810	780	560	550	420	410	320	320	230	230	4.26
5 ft	lb	1790	1720	1230	1210	930	900	710	710	510	510	(14.0)
0.5 m	kg	780	750	540	530	400	400	320	320	240	240	4.19
0 ft	lb	1720	1650	1190	1170	880	880	710	710	530	530	(13.7)
C	kg	770	740	530	520	400	390	310	310	250	250	4.04
Ground Line	lb	1700	1630	1170	1150	880	860	680	680	550	550	(13.3)
-0.5 m	kg	770	740	530	520	390	390	310	310	280	280	3.78
-0 ft	lb	1700	1630	1170	1150	860	860	680	680	620	620	(12.4)
-1.0 m	kg	770	750	530	520	400	390			340	340	3.36
-5 ft	lb	1700	1650	1170	1150	880	860			750	750	(11.0)
-1.5 m	kg	790	760	540	530					500	490	2.67
-5 ft	lb	1740	1680	1190	1170					1100	1080	(8.8)
-2.5 m	kg									360	360	3.38
-10 ft	lb									790	790	(11.1)

- 1. Lifting capacity is based on SAE J1097, ISO 10567.
- 2. Lifting capacity of the Robex Series does not exceed 75% of the 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 the load limited by hydraulic capacity.

Lifting Capacities

R25Z-9AK

Rating over-front Rating over-side or 360 degrees

Boom: 1.945 m (6′5″) / Arm: 1.35 m (4′5″) / Bucket: 0.07 m³ (0.01 yd³) SAE heaped / Dozer Down / 250 mm (9.8″) Rubber track / Cabin Type / Standard counterweight														
					At max. reach									
Load point height m (ft)		2.0 m(5 ft)		2.5 m(10 ft)		3.0 m	(10 ft)	3.5 m(10 ft)		4.0 m(15 ft)		Capacity		Reach
												r r		m (ft)
3.5 m	kg											*500	380	3.39
10 ft	lb											*1100	840	(11.1)
3.0 m	kg											*510	300	3.85
10 ft	lb											*1120	660	(12.6)
2.5 m	kg							*540	350			*530	260	4.15
10 ft	lb							*1190	770			*1170	570	(13.6)
2.0 m	kg					*550	450	*570	350			*550	240	4.34
5 ft	lb					*1210	990	*1260	770			*1210	530	(14.2)
1.5 m	kg			*740	600	*670	440	*630	340	*610	270	*570	220	4.44
5 ft	lb			*1630	1320	*1480	970	*1390	750	*1340	600	*1260	490	(14.6)
1.0 m	kg	*1480	820	*1010	570	*820	430	*710	330	*650	260	*590	220	4.46
5 ft	lb	*3260	1810	*2230	1260	*1810	950	*1570	730	1430	570	*1300	490	(14.6)
0.5 m	kg	*1930	780	*1250	550	*950	410	*790	320	*680	260	*610	220	4.40
0 ft	lb	*4250	1720	*2760	1210	*2090	900	*1740	710	*1500	570	*1340	490	(14.4)
Ground Line	kg	*2020	760	*1390	530	*1040	400	*840	310			*630	230	4.25
	lb	*4450	1680	*3060	1170	*2290	880	*1850	680			*1390	510	(13.9)
-0.5 m	kg	*2090	750	*1430	520	*1070	390	*840	310			*660	250	4.01
0 ft	lb	*4610	1650	*3150	1150	*2360	860	*1850	680			*1460	550	(13.2)
-1.0 m	kg	*1950	750	*1360	520	*1020	390					*670	300	3.64
5 ft	lb	*4300	1650	*3000	1150	*2250	860					*1480	660	(11.9)
-1.5 m	kg	*1650	760	*1160	530							*660	400	3.06
5 ft	lb	*3640	1680	*2560	1170							*1460	880	(10.0)
-2.0 m	kg	*1040	790											
5 ft	lb	*2290	1740											
-2.5 m	kg											*510	420	(3.07)
-10 ft	lb											*1120	930	(10.1)

Boom: 1.945 m (6'5") / Arm: 1.35 m (4'5") / Bucket: 0.07 m³ (0.01 yd³) SAE heaped / DozerUp / 250 mm (9.8") Rubber track / Cabin Type / Standard counterweight														
						Load	radius					A	h	
Load point height m (ft)		2.0 m(5 ft)		2.5 m(10 ft)		3.0 m(10 ft)		3.5 m(10 ft)		4.0 m(15 ft)		Capacity		Reach
				r T										m (ft)
3.5 m	kg											370	370	3.39
10 ft	lb											820	820	(11.1)
3.0 m	kg											290	290	3.85
10 ft	lb											640	640	(12.6)
2.5 m	kg							340	340			250	250	4.15
10 ft	lb							750	750			550	550	(13.6)
2.0 m	kg					450	440	340	340			230	230	4.34
5 ft	lb					990	970	750	750			510	510	(14.2)
1.5 m	kg			600	590	440	430	330	330	260	260	220	220	4.44
5 ft	lb			1320	1300	970	950	730	730	570	570	490	490	(14.6)
1.0 m	kg	830	800	570	560	420	420	320	320	260	260	210	210	4.46
5 ft	lb	1830	1760	1260	1230	930	930	710	710	570	570	460	460	(14.6)
0.5 m	kg	790	760	540	530	410	400	310	310	250	250	210	220	4.40
0 ft	lb	1740	1680	1190	1170	900	880	680	680	550	550	460	490	(14.4)
Ground Line	kg	770	740	530	520	390	390	310	310			220	230	4.25
	lb	1700	1630	1170	1150	860	860	680	680			490	510	(13.9)
-0.5 m	kg	760	730	520	510	390	380	300	300			250	250	4.01
0 ft	lb	1680	1610	1150	1120	860	840	660	660			550	550	(13.2)
-1.0 m	kg	760	730	520	510	390	380					290	290	3.64
_5 ft	lb	1680	1610	1150	1120	860	840					640	640	(11.9)
-1.5 m	kg	770	740	530	520							390	390	3.06
5 ft	lb	1700	1630	1170	1150							860	860	(10.0)
-2.0 m	kg	790	760											
-5 ft	lb	1740	1680											
-2.5 m	kg											410	410	(3.07)
-10 ft	lb											900	900	(10.1)

- 1. Lifting capacity is based on SAE J1097, ISO 10567.
- Lifting capacity is based on 5/E5/65/, iso 10307.
 Lifting capacity of the Robex Series does not exceed 75% of the tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
 The load point is a hook located on the back of the bucket.
 (*) indicates the load limited by hydraulic capacity.