

Specifications

ENGINE

MODEL	MITSUBISHI D04FD-TAA		
Type	Water cooled, 4 cycle Diesel, 4-Cylinders in line, direct injection, turbocharged, charged air cooled and low emission		
Rated flywheel horse power	SAE	J1995 (gross)	119 HP (89 kW) / 2,000 rpm
		J1349 (net)	113 HP (85 kW) / 2,000 rpm
	DIN	6271/1 (gross)	121 PS (89 kW) / 2,000 rpm
		6271/1 (net)	115 PS (85 kW) / 2,000 rpm
Max. torque	45.4 kgf.m (328 lbf.ft) / 1,700 rpm		
Bore x stroke	102 x 130 mm (4.01" x 5.12")		
Piston displacement	4,249 cc (259 in ³)		
Batteries	2 X 12V X 100AH		
Starting motor	24 V - 5.0 kW		
Alternator	24 V - 50 Amp		

HYDRAULIC SYSTEM

MAIN PUMP	
Type	Two variable displacement piston pumps
Max. flow	2 X 123.5 L/min (32.6 US gpm / 27.2 UK gpm)
Sub-pump for pilot circuit	Gear pump
Cross-sensing and fuel saving pump system	

HYDRAULIC MOTORS

Travel	Two speed axial piston motor with brake valve and parking brake
Swing	Axial piston motor with automatic brake

RELIEF VALVE SETTING

Implement circuits	350 kgf/cm ² (4,978 psi)
Travel	350 kgf/cm ² (4,978 psi)
Power boost (boom, arm, bucket)	380 kgf/cm ² (5,404 psi)
Swing circuit	265 kgf/cm ² (3,769 psi)
Pilot circuit	40 kgf/cm ² (568 psi)
Service valve	Installed

HYDRAULIC CYLINDERS

No. of cylinder-bore x stroke	Boom : 2 - 105 x 1,075 mm (4.1" x 42.3")
	Arm : 1 - 115 x 1,138 mm (4.5" x 44.8")
	Bucket : 1 - 100 x 837 mm (3.9" x 33.0")
	Blade : 2 - 100 x 260 mm (3.9" x 10.2")
	1st boom (adjustable-boom) : 2 - 105 x 975 mm (4.1" x 38.4")
	Adjustable-boom : 1 - 145 x 613 mm (5.7" x 24.1")

DRIVES & BRAKES

Drive method	Fully hydrostatic type
Drive motor	Axial piston motor, in-shoe design
Reduction system	Planetary reduction gear
Max. drawbar pull	13,300 kgf (29,320 lbf)
Max. travel speed (high) / (low)	5.5 km/hr (3.4 mph) / 3.2 km/hr (2.0 mph)
Gradeability	35° (70 %)
Parking brake	Multi wet disc

CONTROL

Pilot pressure operated joysticks and pedals with detachable lever provide almost effortless and fatigueless operation.

Pilot control	Two joysticks with one safety lever (LH): Swing and arm (RH): Boom and bucket (ISO)
Traveling and steering	Two levers with pedals
Engine throttle	Electric, Dial type
Lights	Two lights mounted on the boom, one light mounted in the battery box

SWING SYSTEM

Swing motor	Axial piston motor
Swing reduction	Planetary gear reduction
Swing bearing lubrication	Grease-bathed
Swing brake	Multi wet disc
Swing speed	12 rpm

COOLANT & LUBRICANT CAPACITY

Refilling	liter	US gal	UK gal
Fuel tank	270.0	71.3	59.4
Engine coolant	15.5	4.1	3.4
Engine oil	17.5	4.6	3.8
Swing device - gear oil	2.5	0.66	0.55
Final drive (each) - gear oil	3.0	0.79	0.66
Hydraulic system (including tank)	210.0	55.5	46.2
Hydraulic tank	124.0	32.8	27.3

UNDERCARRIAGE

The X-leg type center frame is integrally welded with reinforced box-section track frames. The undercarriage includes lubricated rollers, idlers, track adjusters with shock absorbing springs and sprockets, and a track chain with double or triple grouser shoes.

Center frame	X - leg type	
Track frame	Pentagonal box type	
No. of shoes on each side	46	47
No. of carrier rollers on each side	1	2
No. of track rollers on each side	7	7
No. of rail guards on each side	2	2

OPERATING WEIGHT (APPROXIMATE)

Operating weight, including 4,600 mm (15' 1") boom, 2,500 mm (8' 2") arm, SAE heaped 0.58 m³ (0.76 yd³) bucket, lubricant, coolant, full fuel tank, full hydraulic tank, and all standard equipments.

MAJOR COMPONENT WEIGHT

Upperstructure	3,820 kg (8,422 lb)
Counterweight	2,000 kg (4,409 lb)
4.6 m (15' 1") mono boom (with arm cylinder)	1,030 kg (2,270 lb)

OPERATING WEIGHT

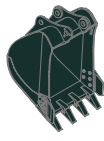
Shoes		Operating weight kg (lb)	Ground pressure kgf/cm ² (psi)
Type	Width mm (in)		
Triple grouser	500 (20")	R140LC-9	13,790 (30,400) 0.43 (6.11)
		R140LCD-9	14,590 (32,160) 0.45 (6.40)
	600 (24")	R140LC-9	13,980 (30,820) 0.36 (5.12)
		R140LCD-9	14,800 (32,630) 0.38 (5.40)
	700 (28")	R140LC-9	14,210 (31,330) 0.32 (4.55)
		R140LCM-9	16,880 (37,210) 0.32 (4.55)
Double grouser	710 (28")	R140LCM-9	16,880 (37,210) 0.36 (5.12)

BUCKETS

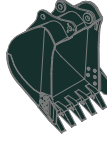
All buckets are welded with high-strength steel



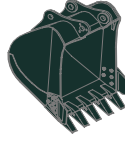
0.23 (0.30)



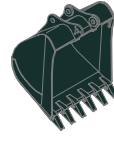
0.40 (0.52)
0.46 (0.60)



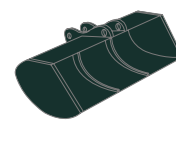
0.52 (0.68)
0.58 (0.76)



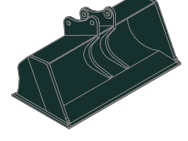
0.65 (0.85)



0.71 (0.93)



● 0.45 (0.59)



★ 0.55 (0.72)

SAE heaped m³ (yd³)

Capacity m ³ (yd ³)		Width mm (in)		Weight kg (lb)	Recommendation mm (ft.in)								
SAE heaped	CECE heaped	Without side cutters	With side cutters		4,600 (15' 1") Boom				4,100 (13' 5") Boom		4,900 (16' 1") Adjustable Boom		
					1,900 (6' 3") Arm	2,100 (6' 11") Arm	2,500 (8' 2") Arm	3,000 (9' 10") Arm	1,900 (6' 3") Arm	2,100 (6' 11") Arm	1,900 (6' 3") Arm	2,100 (6' 11") Arm	2,500 (8' 2") Arm
0.23 (0.30)	0.20 (0.26)	520 (20.5)	620 (24.4)	335 (740)	●	●	●	■	●	●	●	●	●
0.40 (0.52)	0.35 (0.46)	760 (29.9)	860 (33.9)	410 (900)	●	●	●	■	●	●	●	●	●
0.46 (0.60)	0.40 (0.52)	850 (33.5)	950 (37.4)	435 (960)	●	●	●	▲	●	●	●	●	■
0.52 (0.68)	0.45 (0.59)	935 (36.8)	1,035 (40.8)	460 (1,010)	●	●	●	-	●	●	●	■	■
0.58 (0.76)	0.50 (0.65)	1,030 (40.6)	1,130 (44.5)	480 (1,060)	●	●	■	-	●	●	■	▲	▲
0.65 (0.85)	0.55 (0.72)	1,110 (43.7)	1,210 (47.6)	500 (1,100)	■	■	▲	-	●	■	▲	▲	-
0.71 (0.93)	0.60 (0.78)	1,205 (47.4)	-	540 (1,190)	▲	▲	-	-	■	▲	▲	-	-
● 0.45 (0.59)	0.40 (0.52)	1,520 (59.8)	-	410 (900)	●	●	■	-	●	●	■	■	▲
★ 0.55 (0.72)	0.45 (0.59)	1,800 (70.9)	-	585 (1,290)	■	■	▲	-	●	●	■	▲	▲

● Slope finishing bucket

★ Ditch cleaning bucket

● Applicable for materials with density of 2,000 kg / m³ (3,370 lb / yd³) or less

■ Applicable for materials with density of 1,600 kg / m³ (2,700 lb / yd³) or less

▲ Applicable for materials with density of 1,100 kg / m³ (1,850 lb / yd³) or less

ATTACHMENT

Booms and arms are welded, a low-stress, full-box section design. 4.6 m (15' 1"); 4.1 m (13' 5") boom, 4.9 m (16' 1") adjustable boom and 1.9 m (6' 3"); 2.1 m (6' 11"); 2.5 m (8' 2") & 3.0 m (9' 10") arms are available.

DIGGING FORCE

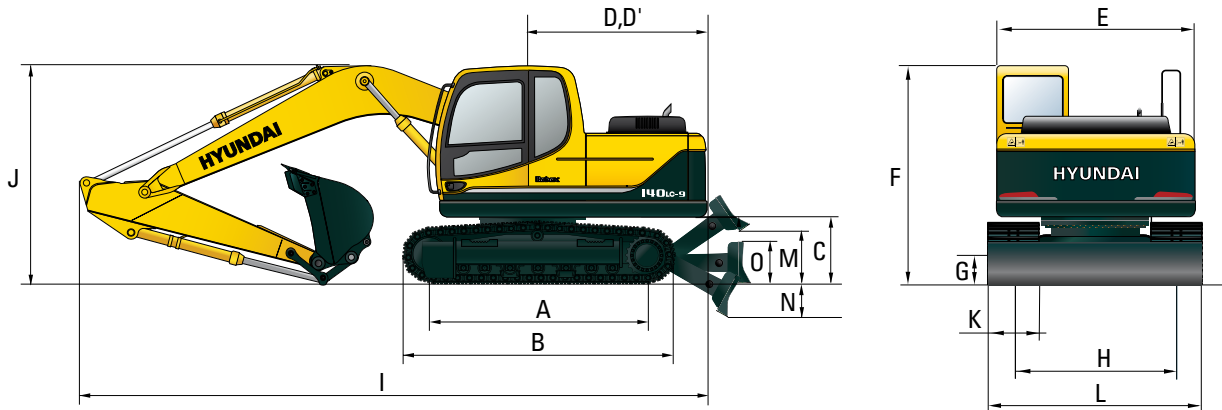
Boom	Length	mm (ft.in)	4,600 (15' 1")				Remarks
	Weight	kg (lb)	1,030 (2,270)				
Arm	Length	mm (ft.in)	1,900 (6' 3")	2,100 (6' 11")	2,500 (8' 2")	3,000 (9' 10")	[]: Power Boost
	Weight	kg (lb)	560 (1,230)	580 (1,280)	610 (1,340)	670 (1,480)	
Bucket digging force	SAE	kN	87.3 [94.8]	87.3 [94.8]	87.3 [94.8]	87.3 [94.8]	
		kgf	8,900 [9,660]	8,900 [9,660]	8,900 [9,660]	8,900 [9,660]	
		lbf	19,620 [21,300]	19,620 [21,300]	19,620 [21,300]	19,620 [21,300]	
	ISO	kN	102 [110.8]	102 [110.8]	102 [110.8]	102 [110.8]	
		kgf	10,400 [11,290]	10,400 [11,290]	10,400 [11,290]	10,400 [11,290]	
		lbf	22,930 [24,890]	22,930 [24,890]	22,930 [24,890]	22,930 [24,890]	
Arm crowd force	SAE	kN	76.5 [83.1]	73.6 [79.9]	62.8 [68.2]	55.9 [60.7]	
		kgf	7,800 [8,470]	7,500 [8,140]	6,400 [6,950]	5,700 [6,190]	
		lbf	17,200 [18,670]	16,530 [17,950]	14,110 [15,320]	12,570 [13,640]	
	ISO	kN	80.4 [87.3]	77.5 [84.1]	65.7 [71.4]	57.9 [62.8]	
		kgf	8,200 [8,900]	7,900 [8,580]	6,700 [7,270]	5,900 [6,410]	
		lbf	18,080 [19,630]	17,420 [18,910]	14,770 [16,040]	13,010 [14,120]	

Note: Boom weight includes arm cylinder, piping, and pin

Arm weight includes bucket cylinder, linkage, and pin

Dimensions & Working Ranges

DIMENSIONS R140LCD-9



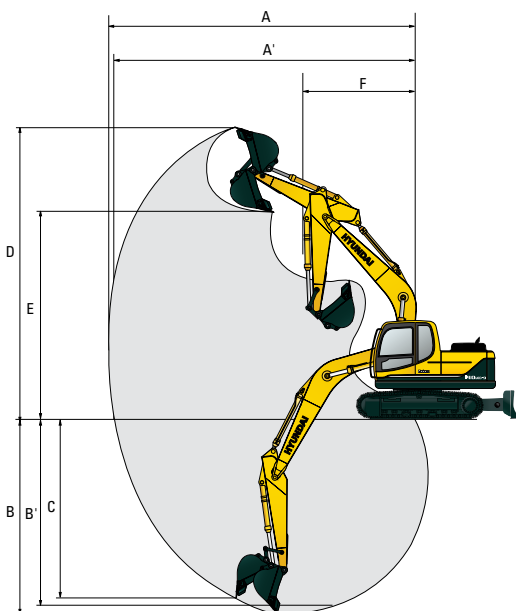
mm (ft · in)

mm (ft · in)

A Tumbler distance	3,000 (9' 10")	Boom length				4,600 (15' 1")		4,100 (13' 5")			
B Overall length of crawler	3,750 (12' 4")	Arm length				1,900 (6' 3")	2,100 (6' 11")	2,500 (8' 2")	3,000 (9' 10")	1,900 (6' 3")	2,100 (6' 11")
C Ground clearance of counterweight	940 (3' 1")	I Overall length				8,130 (26' 7")	8,160 (26' 7")	8,130 (26' 7")	8,100 (26' 6")	7,630 (25' 0")	7,660 (25' 1")
D Tail swing radius	2,330 (7' 7")	J Overall height of boom				2,650 (8' 7")	2,760 (9' 0")	2,780 (9' 1")	3,110 (10' 2")	2,600 (8' 5")	2,790 (9' 2")
D' Rear-end length	2,330 (7' 7")	K Track shoe width				500 (20")		600 (24")		700 (28")	
E Overall width of upperstructure	2,500 (8' 2")	L Overall width				2,500 (8' 2")		2,600 (8' 6")		2,700 (8' 10")	
F Overall height of cab	2,860 (9' 4")										
G Min. ground clearance	440 (1' 5")										
H Track gauge	2,000 (6' 7")										
M Ground clearance of blade up	560 (1' 8")										
N Depth of blade down	500 (1' 6")										
O Height of blade	550 (1' 8")										
Width of blade	2,500 (8' 2") 2,600 (8' 6")										

WORKING RANGES R140LCD-9

mm (ft · in)



Boom length	4,600 (15' 1")				4,100 (13' 5")	
Arm length	1,900 (6' 3")	2,100 (6' 11")	2,500 (8' 2")	3,000 (9' 10")	1,900 (6' 3")	2,100 (6' 11")
A Max. digging reach	7,750 (25' 5")	7,920 (25' 11")	8,330 (27' 4")	8,790 (28' 10")	7,260 (23' 10")	7,420 (24' 4")
A' Max. digging reach on ground	7,600 (24' 11")	7,770 (25' 6")	8,180 (26' 10")	8,650 (28' 4")	7,090 (23' 3")	7,260 (23' 10")
B Max. digging depth	4,950 (16' 2")	5,150 (16' 10")	5,550 (18' 3")	6,050 (19' 10")	4,540 (14' 11")	4,740 (15' 7")
B' Max. digging depth (8° level)	4,680 (15' 4")	4,900 (16' 1")	5,340 (17' 6")	5,870 (19' 3")	4,280 (14' 1")	4,490 (14' 9")
C Max. vertical wall digging depth	4,650 (15' 3")	4,900 (16' 1")	5,330 (17' 6")	5,850 (19' 2")	4,240 (13' 11")	4,350 (14' 3")
D Max. digging height	8,100 (26' 7")	8,180 (26' 10")	8,500 (27' 11")	8,780 (28' 10")	7,700 (25' 3")	7,770 (25' 6")
E Max. dumping height	5,670 (18' 7")	5,750 (18' 10")	6,060 (19' 11")	6,330 (20' 9")	5,260 (17' 3")	5,340 (17' 6")
F Min. swing radius	2,630 (8' 8")	2,670 (8' 9")	2,650 (8' 8")	2,680 (8' 10")	2,350 (7' 9")	2,460 (8' 1")