

9020B Excavator



ENGINE

Model..... Case 4TA-390
Type 4-stroke, turbocharged
and aftercooled
Cylinders 4
Bore / Stroke 4.02" x 4.72"
(102 x 120 mm)
Displacement 239 in³ (3.9 L)
Fuel injection..... Direct
Fuel..... Diesel
Fuel filter..... In-line strainer
Air intake Cross-flow
Cooling Liquid
Horsepower per SAE J1349
Net 106 hp (79 kW) @ 2200 rpm
Maximum torque @ 1450 rpm
Net 325 lb·ft (440 N·m)

BOOM/ARM

Boom

Length..... 16'11" (5.15 m)
Boom w/arm cylinder
& plumbing 2,553 lb (1158 kg)
Hoist cylinders (2) .. 785 lb (356 kg) ea
Total weight..... 3,338 lb (1514 kg)

10'0" Arm (3.05 m)

Length..... 10'0" (3.05 m)
Bare arm 1,217 lb (552 kg)
Bucket cylinder linkage
& plumbing 549 lb (249 kg)
Total arm weight.. 1,766 lb (801 kg)

8'10" Arm (2.7 m)

Length..... 8'10" (2.7 m)
Bare arm 1,016 lb (461 kg)
Bucket cylinder linkage
& plumbing 549 lb (249 kg)
Total arm weight.. 1,565 lb (710 kg)

UNDERCARRIAGE

Number of top rollers
Top, each track 2
Bottom, each track 7
Number of shoes
Triple grouser - each track 43
Link pitch 7.48" (190 mm)

HYDRAULICS

Pumps (2)..... Variable displacement
axial-piston design
Capacity –
Maximum..... 2 x 36.5 gpm
(138 L/min)
Minimum 2 x 15.5 gpm
(59 L/min)
System relief pressure –
Standard..... 4550 psi (31 400 kPa)
Power Boost 4975 psi (34 300 kPa)
Control valves –
4-spool section for right track
travel, auxiliary, swing and arm
3-spool section for left track
travel, boom and bucket
Boom holding valve

Pilot control hydraulic system –
Pump (1)..... Gear design
Maximum capacity 5.5 gpm
(21 L/min)
Relief pressure .. 566 psi (3900 kPa)

Swing –
Motor (1) Fixed displacement
axial-piston design
Speed 0-11.3 rpm
Brake..... Spring-applied
hydraulically released
disc type with cushion control
Tail swing radius 7'8" (2.34 m)

Travel –
Motor (2)..... Three-speed
axial-piston design
Final drive..... Planetary gear
reduction
Drawbar pull.... 28,880 lb (128 kN)

Travel Speeds –
Forward / Reverse
Low 1.4 mph (2.3 km/h)
Medium..... 2.1 mph (3.3 km/h)
High..... 3.4 mph (5.5 km/h)

Travel control valve –
Dual stage relief and counter-
balance design with disc-type brakes

HYDRAULIC CYLINDERS

Boom cylinders (2) –
Bore diameter 4.5" (115 mm)
Rod diameter 3.1" (80 mm)
Stroke 46.6" (1.18 m)
Arm cylinder (1) –
Bore diameter..... 4.9" (125 mm)
Rod diameter 3.5" (90 mm)
Stroke 52.6" (1.34 m)
Bucket cylinder (1) –
Bore diameter..... 4.1" (105 mm)
Rod diameter 3.0" (75 mm)
Stroke 39.3" (997 mm)

ELECTRICAL

Voltage 24 volts,
negative ground
Alternator..... 45 amp
Batteries (2) Low-maintenance
120 Ah (20 hr rate)

SERVICE CAPACITIES

Hydraulic tank
Refill capacity..... 19 gal (73 L)
Total system 38 gal (142 L)
Final drive (per side)..... 3.2 qt (3 L)
Swing drive..... 5.3 qt (5 L)
Engine
w/filter change..... 10.8 qt (10.2 L)
Fuel..... 63 gal (240 L)
Radiator 16.6 qt (15.7 L)

OPERATING WEIGHT

With 8'10" (2.7 m) arm, 23.6"
(600 mm) track shoes, 1,056 lb
(480 kg) bucket, 175 lb (79 kg)
operator, full fuel and standard
equipment 35,274 lb (16 000 kg)

LIFT CAPACITIES

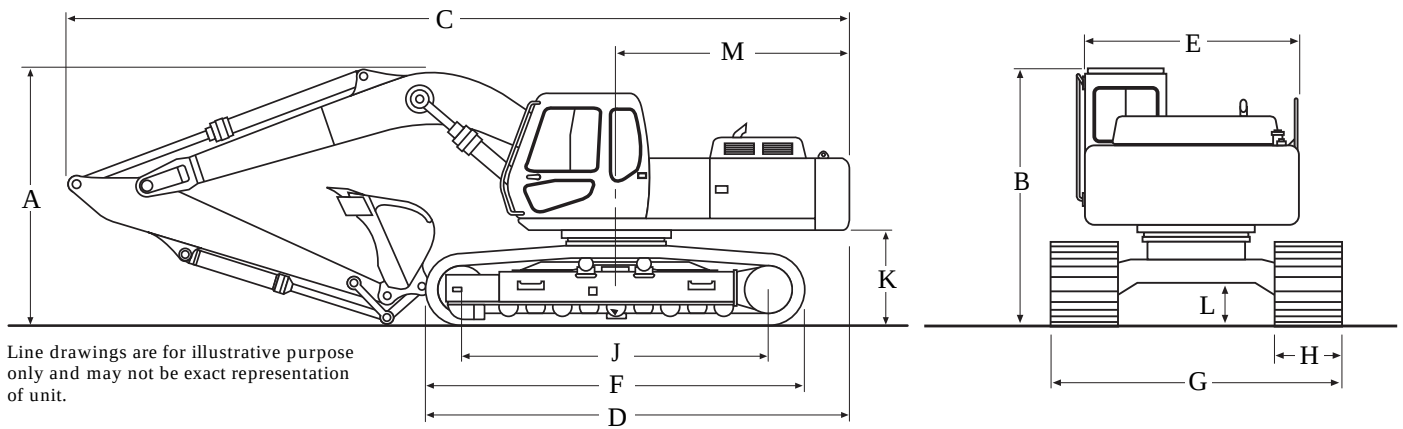
10'0" (3.05 m) Arm *Lift capacities calculated using a 945 lb (429 kg) bucket, 6,460 lb (2930 kg) counterweight operating in "Fine" Mode*

Load (Lift Point) Height	10' (3.05 m)		15' (4.57 m)		20' (6.1 m)		25' (7.62 m)		MAXIMUM REACH		
	END	SIDE	END	SIDE	END	SIDE	END	SIDE	@	END	SIDE
+20' (6.1 m)					6,950 lb* (3152 kg)	6,050 lb (2744 kg)			26'10" (8.18 m)	2,950 lb* (1338 kg)	2,950 lb* (1338 kg)
+15' (4.57 m)					8,200 lb* (3719 kg)	5,950 lb (2699 kg)	5,450 lb* (2472 kg)	3,850 lb (1746 kg)	29'0" (8.84 m)	2,850 lb* (1293 kg)	2,850 lb* (1293 kg)
+10' (3.05 m)	10,300 lb* (4672 kg)	10,300 lb* (4672 kg)	11,200 lb* (5080 kg)	9,100 lb (4128 kg)	8,850 lb (4014 kg)	5,650 lb (2563 kg)	6,050 lb (2744 kg)	3,750 lb (1701 kg)	30'1" (9.17 m)	2,900 lb* (1315 kg)	2,650 lb (1202 kg)
+5' (1.52 m)	22,500 lb* (10 206 kg)	15,400 lb (6985 kg)	13,500 lb (6123 kg)	8,250 lb (3742 kg)	8,450 lb (3833 kg)	5,250 lb (2381 kg)	5,850 lb (2654 kg)	3,600 lb (1633 kg)	30'1" (9.17 m)	3,050 lb* (1383 kg)	2,550 lb (1157 kg)
Ground-line	17,850 lb* (8097 kg)	14,050 lb (6373 kg)	12,750 lb (5783 kg)	7,600 lb (3447 kg)	8,050 lb (3651 kg)	4,900 lb (2223 kg)	5,650 lb (2563 kg)	3,400 lb (1542 kg)	29'3" (8.92 m)	3,350 lb* (1520 kg)	2,650 lb (1202 kg)
-5' (-1.52 m)	20,950 lb* (9503 kg)	13,900 lb (6305 kg)	12,400 lb (5625 kg)	7,300 lb (3311 kg)	7,850 lb (3561 kg)	4,700 lb (2132 kg)	5,550 lb (2517 kg)	3,350 lb (1520 kg)	27'3" (8.31 m)	3,900 lb* (1769 kg)	2,950 lb (1338 kg)
-10' (-3.05 m)	26,350 lb (11 952 kg)	14,100 lb (6396 kg)	12,400 lb (5625 kg)	7,300 lb (3311 kg)	7,850 lb (3561 kg)	4,700 lb (2132 kg)			23'10" (7.26 m)	4,900 lb* (2223 kg)	3,750 lb (1701 kg)
-15' (-4.57 m)	23,200 lb* (10 523 kg)	14,600 lb (6622 kg)	12,700 lb (5761 kg)	7,550 lb (3425 kg)							

8'10" (2.7 m) Arm *Lift capacities calculated using a 1,056 lb (480 kg) bucket, 6,460 lb (2930 kg) counterweight operating in "Fine" Mode*

Load (Lift Point) Height	10' (3.05 m)		15' (4.57 m)		20' (6.1 m)		25' (7.62 m)		MAXIMUM REACH		
	END	SIDE	END	SIDE	END	SIDE	END	SIDE	@	END	SIDE
+20' (6.1 m)					6,650 lb* (3016 kg)	6,000 lb (2722 kg)			25'4" (7.72 m)	3,400 lb* (1542 kg)	3,400 lb* (1542 kg)
+15' (4.57 m)					8,850 lb* (4014 kg)	5,900 lb (2676 kg)			27'8" (8.43 m)	3,300 lb* (1497 kg)	3,200 lb (1451 kg)
+10' (3.05 m)	16,600 lb* (7530 kg)	16,600 lb* (7530 kg)	12,100 lb* (5488 kg)	8,900 lb (4037 kg)	8,800 lb (3992 kg)	5,550 lb (2517 kg)	6,000 lb (2722 kg)	3,750 lb (1701 kg)	28'9" (8.76 m)	3,350 lb* (1520 kg)	2,900 lb (1315 kg)
+5' (1.52 m)	24,000 lb* (10 886 kg)	14,900 lb (6759 kg)	13,300 lb (6033 kg)	8,100 lb (3674 kg)	8,350 lb (3787 kg)	5,200 lb (2359 kg)	5,800 lb (2631 kg)	3,550 lb (1610 kg)	28'10" (8.79 m)	3,600 lb* (1633 kg)	2,750 lb (1247 kg)
Ground-line	18,300 lb* (8301 kg)	13,800 lb (6260 kg)	12,600 lb (5715 kg)	7,500 lb (3402 kg)	8,000 lb (3629 kg)	4,900 lb (2223 kg)	5,650 lb (2563 kg)	3,400 lb (1542 kg)	27'11" (8.51 m)	4,000 lb* (1814 kg)	2,850 lb (1293 kg)
-5' (-1.52 m)	22,300 lb* (10 115 kg)	13,850 lb* (6282 kg)	12,350 lb (5602 kg)	7,250 lb (3289 kg)	7,850 lb (3561 kg)	4,700 lb (2132 kg)	5,600 lb (2540 kg)	3,350 lb (1520 kg)	25'9" (7.85 m)	4,700 lb* (2132 kg)	3,250 lb (1474 kg)
-10' (-3.05 m)	26,150 lb (11 861 kg)	14,150 lb (6418 kg)	12,400 lb (5625 kg)	7,300 lb (3311 kg)	7,900 lb (3583 kg)	4,750 lb (2155 kg)			22'2" (6.76 m)	6,100 lb* (2767 kg)	4,250 lb (1928 kg)
-15' (-4.57 m)	21,550 lb* (9775 kg)	14,700 lb (6668 kg)	12,800 lb (5806 kg)	7,650 lb (3470 kg)							

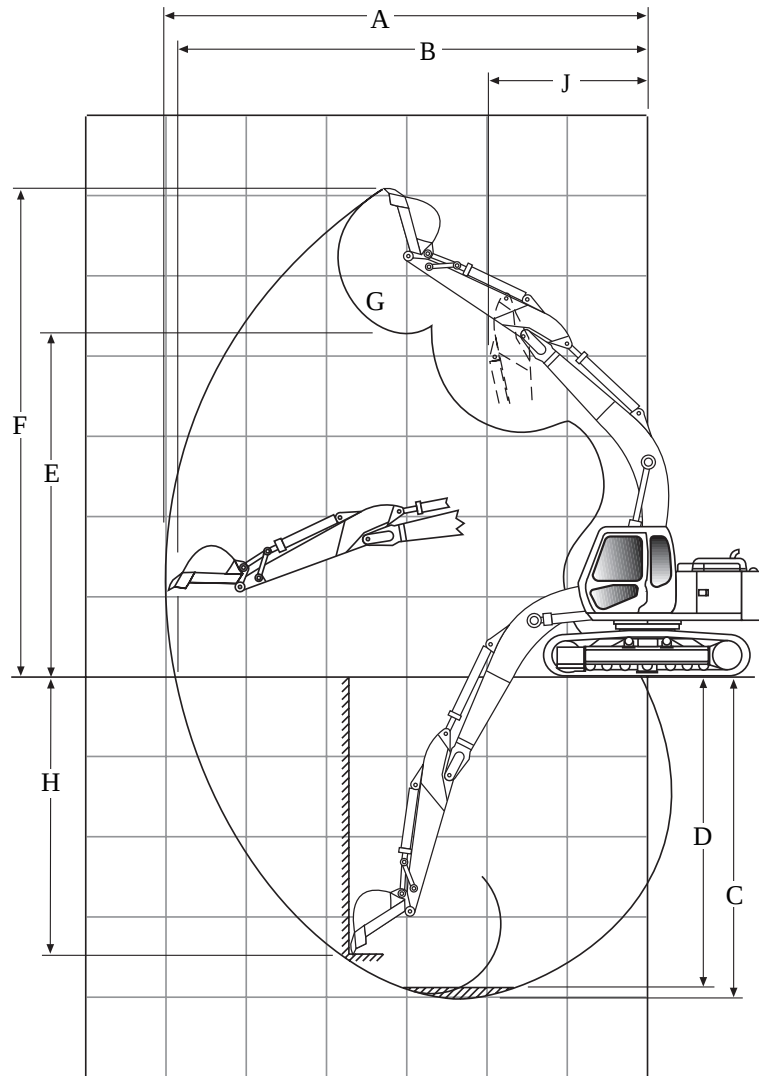
NOTE: *Lift capacities do not exceed 75% of the minimum tipping load or 87% of the hydraulic lift capacity.
Capacities that are marked with an asterisk are hydraulic limited.



DIMENSIONS

	10'2" (3.05 m) Arm	8'10" (2.7 m) Arm
A. Overall height	10'2" (3.1 m)	9'7" (2.91 m)
B. Cab height	9'7" (2.91 m)	9'7" (2.91 m)
C. Overall length	27'7" (8.4 m)	27'3" (8.31 m)
D. w/o attachment	14'0" (4.26 m)	14'0" (4.26 m)
E. Width of upperstructure	8'2" (2.5 m)	8'2" (2.5 m)
F. Track overall length	12'11" (3.94 m)	12'11" (3.94 m)
G. Track overall width w/ 23.6" (600 mm) shoes	8'6" (2.59 m)	8'6" (2.59 m)
H. Track shoe width	23.6" (600 mm)	23.6" (600 mm)
J. Center to center (idler to sprocket)	10'2" (3.09 m)	10'2" (3.09 m)
K. Upperstructure ground clearance	3'4" (1.02 m)	3'4" (1.02 m)
L. Minimum ground clearance	1'5" (440 mm)	1'5" (440 mm)
M. Tail swing radius	7'9" (2.35 m)	7'9" (2.35 m)
Working weight*	35,475 lb (16 091 kg)	35,274 lb (16 000 kg)
Ground pressure	5.5 psi (38 kPa)	5.5 psi (38 kPa)

*With 23.6" (600 mm) track shoe, 1,056 lb (480 kg) bucket, 175 lb (79 kg) operator, full fuel and standard equipment.



PERFORMANCE SPECS

	10'2" (3.05 m) Arm	8'10" (2.7 m) Arm
A. Maximum dig radius	31'1" (9.48 m)	29'10" (9.09 m)
B. Dig radius at groundline	30'7" (9.32 m)	29'3" (8.92 m)
C. Maximum dig depth	21'2" (6.46 m)	20'1" (6.11 m)
D. Dig depth - 8'0" (2.44 m) level bottom	20'7" (6.28 m)	19'5" (5.91 m)
E. Dump height	22'8" (6.92 m)	21'6" (6.55 m)
F. Overall reach height	31'5" (9.58 m)	30'1" (9.18 m)
G. Bucket rotation	183°	183°
H. Vertical straight wall dig depth	19'1" (5.82 m)	17'3" (5.26 m)
J. Minimum swing radius	9'10" (3.0 m)	9'10" (3.0 m)
Arm digging force		
Standard	15,000 lb (66.7 kN)	16,320 lb (72.6 kN)
Power Boost	16,320 lb (72.6 kN)	17,640 lb (78.5 kN)
Bucket digging force		
Standard	20,730 lb (92.2 kN)	20,730 lb (92.2 kN)
Power Boost	22,710 lb (101 kN)	22,710 lb (101 kN)

STANDARD EQUIPMENT

OPERATOR'S COMPARTMENT

Cab with Isomount® system
Adjustable deluxe seat with
3" (76 mm) retractable seat belt
Oscillating fan
Vandal cover
Front window safety glass
Heater: 13,500 BTU
AM / FM Radio
Roof hatch, skylight
Sliding Lexan™ windows
Windshield wiper w / washer

ENGINE

Case 4TA-390 turbocharged diesel
Federal emission certified
Ether cold start
Warm up mode
Selectable one touch or auto
accelerator/decelerator

ELECTRICAL

Batteries (2)
Electronic Systems Monitor

HYDRAULICS

ISO pattern pilot controls
4 Position mode selector:
H, S, L & F
Power boost
2 Variable flow piston pumps
Auxiliary attachment mode
Auto pump destroke
Auxiliary hydraulic valve
Boom holding valve
Selectable cushion control
for boom and arm
Controlled free swing
Ultra clean filtration system

UNDERCARRIAGE

Shoes: 23.6" (600 mm) 3-bar,
47 per side
Track length: 12'11" (3.94 m)
Track gauge: 6'6" (1.98 m)

TRACK DRIVE

3 speed hydrostatic travel
Disc type parking brakes

UPPERSTRUCTURE

Boom: 16'11" (5.15 m) one piece
Free swing control
Hammer adaptable, no reinforcing
required
Swing brake

OTHER

Counterweight: 6,460 lb (2930 kg)
Single key vandal lockup

OPTIONAL EQUIPMENT

OPERATOR'S COMPARTMENT

Air conditioner

UPPERSTRUCTURE

Arm: 10'0" or 8'10"
(3.05 m or 2.7 m)

HYDRAULICS

Auxiliary hydraulics
Single acting, one pump
Double acting, single or dual pump
(includes heavy duty bucket
linkage)
Double acting general purpose
for use with thumb kit

OTHER

Load holding control devices
Cylinder mounted
Case / JRB Slide-Loc® Coupler
Hydraulic or mechanical

BUCKETS

Application

Width

SAE Heaped Capacity

General Purpose.....	24" thru 42" (0.61 m thru 1.07 m)	0.50 yd ³ thru 0.92 yd ³ (0.38 m ³ thru 0.70 m ³)
General Purpose Hi-Capacity	24" thru 42" (0.61 m thru 1.07 m)	0.59 yd ³ thru 1.12 yd ³ (0.45 m ³ thru 0.86 m ³)
Heavy-duty.....	24" thru 36" (0.61 m thru 0.91 m)	0.50 yd ³ thru 0.78 yd ³ (0.38 m ³ thru 0.60 m ³)
Heavy-Duty Ditch	48" or 60" (1.22 m or 1.52 m)	0.67 yd ³ thru 0.90 yd ³ (0.51 m ³ thru 0.69 m ³)

NOTE: All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.

Form No. - CE 229-07-99
Replaces Form No. - None



IMPORTANT: Case Corporation reserves the right to change these specifications without notice and without incurring any obligation relating to such change. Case Corporation does not warrant the safety or reliability of attachments from other manufacturers.

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9020B Page 6 of 6

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