

# Loader/Backhoe

Case 63 net horsepower (47 kW) diesel  
Digging depth 12', 14', 12-15' (3.7, 4.3, 3.7-4.6 m)  
Loader lift capacity 4600 lbs (2087 kg), 2WD  
Loader lift capacity 4800 lbs (2177 kg), 4WD

# 480F



**Case**

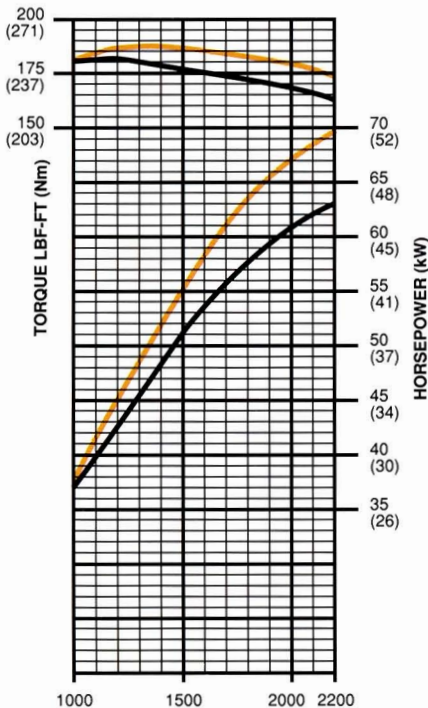
**480F**

# 480F Basic Tractor

## ENGINE

Make and Model	Case 4-390
Type of fuel	No. 2 diesel
No. of cylinders	4
Bore and stroke	4.02" x 4.72" (102 mm x 120 mm)
Displacement	239 in <sup>3</sup> (3917 cm <sup>3</sup> )
Compression ratio	17.0:1
Fuel induction	Injectors
Fuel supply	Injection pump
Air cleaner	Dry type— replacement element
Oil filter	Replaceable spin-on cartridge, full flow
Lubrication	Positive pressure
Cooling system	Pressurized— 14 psi (96 kPa)
<b>Horsepower</b>	
(1) Gross	69 @ 2200 rpm (51 kW @ 2200 r/min)
(2) SAE Net	63 @ 2200 rpm (47 kW @ 2200 r/min)
<b>Max torque ft-lb</b>	
(1) Gross	186 @ 1200 rpm (252 Nm @ 1200 r/min)
(2) SAE Net	181 @ 1200 rpm (245 Nm @ 1200 r/min)
(1) Gross engine horsepower or torque at flywheel per SAE standard J1349.	
(2) Net engine horsepower or torque at flywheel per SAE standard J1349.	

## POWER CURVE



ENGINE SPEED - RPM (r/min)

■ GROSS ENGINE PERFORMANCE

■ NET ENGINE PERFORMANCE

## ELECTRICAL

System voltage	12 volts, negative ground
Battery (1)	Maintenance free, 650 cold cranking amps at 32°F (0°C)
Alternator	65 amp

## POWER TRAIN

Transmission: 4-speed sliding spur gear with full power shuttle and torque converter. Permits on-the-go shifting up from 2nd to 3rd to 4th and back down from 4th to 3rd.

Torque converter: Single stage hydrokinetic type (2.78 to 1 ratio).

Reversing unit: Full power hydraulic clutches.

Brakes: Individual or simultaneous foot operated, hydraulic actuated 8" (203 mm), double disc with 246 in<sup>2</sup> (1587 cm<sup>2</sup>) braking surface. Over-center hand operated dry disc parking brake.

Final drives:

Front (4-WD)..... outboard planetaries  
Rear..... multiple gear reduction

4-wheel drive: operator engaged front wheel mechanical drive by lever located next to operator's seat.

## AXLE RATINGS (Manufacturer's)

Front (2-WD)	9,000 lbs (4082 kg)
(4-WD)	12,500 lbs (5670 kg)
Rear	13,500 lbs (6123 kg)

## AXLE OSCILLATION

Front (2-WD)	27°
(4-WD)	24°
Rear	Fixed

## STEERING

Power steering..... Hydrostatic  
Hydraulic pump..... Front-mounted, positive displacement, gear type

Pump capacity.....  
23 gpm @ 2200 rpm @ 2450 psi  
(87 l/min @ 2200 r/min @ 16 892 kPa)

Steering system: Utilizes same hydraulic pump as the hydraulic system. Steering system is a load-sensing, supply-on-demand system that requires a maximum of 3.0 gpm (11.4 l/min) when turning wheels from stop to stop. Excess oil not being utilized by steering system is then made available to equipment hydraulic system.

Main relief setting..... 2100 ± 50 psi  
(14 479 ± 345 kPa)

Turning ratio (stop to stop)..... 2.75 turns  
Steering cylinders, double acting

(2)..... 1.5" dia x 6.5" stroke  
(38 mm dia x 165 mm stroke)

## SERVICE CAPACITIES

	U.S.	Litres
Cooling system		
w/heater	18 qt	17
w/o heater	17 qt	16.1
Fuel tank	23.5 gal	89
Engine oil		
w/filter	11.6 qt	11
w/o filter	10.6 qt	10
Power shuttle	8 qt	7.6
Transaxle	19 qt	18.0
Hydraulic reservoir		
w/filter	10.8 gal	41.0
w/o filter	10.5 gal	39.7
Planetaries—		
each (4-WD)	1.5 qt	1.4
Differential (4-WD)	7 qt	6.6
Transfer case (4-WD)	1 pt	.5

## TRAVEL SPEEDS — MPH (km/h)

Engine at full throttle, 14.9 x 24, R4 tires.

	1st	2nd	3rd	4th
<b>Forward</b>	3.3 (5.4)	6.4 (10.3)	12.0 (19.2)	20.9 (33.7)
<b>Reverse</b>	3.0 (4.8)	5.7 (9.2)	10.7 (17.3)	18.2 (29.3)

## TIRES

Size	Ply Rating	Pressure Tread PSI (kPa)
<b>FRONT</b>		
7.50 x 16	6	I1 . 36 (248)
7.50 x 16	10	I1 . 60 (414)
8.00 x 16	10	F3 . 64 (441)
11L x 16	10	F3 . 52 (359)
12 x 16.5 (1)	6	Lug . 45 (310)
12 x 16.5 (1)	8	Lug . 60 (414)

## REAR

14.9 x 24	6	R4 . 20 (138)
16.9 x 24	6	R4 . 18 (124)
17.5L x 24	6	R4 . 16 (110)
* 17.5L x 24 (1)	8	R4 . 22 (152)
* 17.5L x 24 (1)	10	R4 . 28 (193)

\*Must be used on machines equipped with Extendahoe.  
(1) 4-WD

## TURNING CLEARANCE CIRCLE (Tractor only)

With brakes — 2-WD	20'9" (6.3 m)
Without brakes — 2-WD	23'7" (7.19 m)
With brakes — 4-WD	26'0" (7.93 m)
Without brakes — 4-WD	31'1" (9.47 m)

# 480F Loader

## HYDRAULIC SYSTEM

Hydraulic pump: Front mounted, positive displacement, gear type.

Pump capacity:

23 gpm @ 2200 rpm  
(87 l/min @ 2200 r/min)

Main relief pressure: 2450 psi (16 892 kPa)

Filtration: 10-micron, full flow replaceable cartridge on return line. Condition indicator light for filter.

Loader control valve: Sectional valve with single-lever control.

Hydraulic lines: Steel tubing with brazed or flared fittings and wire braid, high pressure hose with crimped, full flow fittings.

Loader cylinders:

Lift (2), 3" dia x 32" stroke, 1.75" rod  
(76.2 mm dia x 813 mm stroke, 44.4 mm rod)

Tilt (2), 2.5" dia x 20.0" stroke, 1.5" rod  
(64 mm dia x 508 mm stroke, 38 mm rod)

## LOADER BUCKET SIZES (Capacities SAE)

Width in	Type	Heaped		Struck	
		yd <sup>3</sup>	m <sup>3</sup>	yd <sup>3</sup>	m <sup>3</sup>
74	1.88 Short lip	.78	.6	.66	.5
82	2.08 Long lip	1.0	.76	.87	.67
82	2.08 4-in-1	1.0	.76	.81	.62

## THREE-POINT MOD HITCH

Hydraulic pump: Front-mounted, positive displacement gear type.

Pump capacity:

23 gpm @ 2200 rpm @ 2450 psi  
(87 l/min @ 2200 r/min @ 16 892 kPa)

Main relief pressure: 1800 psi (12 411 kPa)

Control valve: 4-spool sectional valve for hydraulic control of lift, tilt, pitch, and auxiliary with "float" detent in the lift spool. Optional single-spool sectional valve for hydraulic control of lift and mechanical adjustment of tilt and pitch.

Mod-hitch cylinders:

Lift (1) . . . . 3" dia x 8.4" stroke, 1.5" rod  
(76 mm dia x 213 mm stroke, 38 mm rod)

Tilt (1) . . . . 2.5" dia x 6.3" stroke, 1.25" rod  
(64 mm dia x 160 mm stroke, 32 mm rod)

Pitch (1) . . . . 2.5" dia x 7" stroke, 1.25" rod  
(64 mm dia x 178 mm stroke, 32 mm rod)

Lift capacity

At end of lift arms . . 5197 lbs (2362 kg)

At 24" (610 mm) behind

hitch point . . . . . 2850 lbs (1295 kg)

Hitch

Category I/II — Standard

## TURNING CLEARANCE CIRCLE (Loader)

Bucket rollback — hinge pin at SAE carry position

2-wheel drive

74" short lip bucket

with brakes . . . . . 30'1" (9.17 m)  
without brakes . . . . . 31'3" (9.52 m)

82" long lip bucket

with brakes . . . . . 29'9" (9.07 m)  
without brakes . . . . . 32'0" (9.75 m)

4-in-1 bucket

with brakes . . . . . 31'1" (9.47 m)  
without brakes . . . . . 32'1" (9.78 m)

4-wheel drive

74" short lip bucket

with brakes . . . . . 32'5" (9.88 m)  
without brakes . . . . . 39'2" (11.94 m)

82" long lip bucket

with brakes . . . . . 32'9" (9.98 m)  
without brakes . . . . . 40'8" (12.4 m)

4-in-1 bucket

with brakes . . . . . 32'9" (9.98 m)  
without brakes . . . . . 39'11" (12.12 m)

## OPERATIONAL DATA

### GENERAL PURPOSE BUCKET

### 4-IN-1

	74" SHORT LIP				82" LONG LIP			
	(2-WD)		(4-WD)		(2-WD)		(4-WD)	
Breakout force - combined . . . . .	8300 lbf (36 920 N)	8300 lbf (36 920 N)	7500 lbf (33 362 N)	7500 lbf (33 362 N)	7300 lbf (32 472 N)	7300 lbf (32 472 N)	7300 lbf (32 472 N)	7300 lbf (32 472 N)
Grading angle . . . . .	112°		112°		113°		113°	
Overall length, w/o backhoe . . . . .	15'5" (4.70 m)	15'5" (4.70 m)	15'9" (4.80 m)	15'9" (4.80 m)	15'10" (4.83 m)	15'10" (4.83 m)	15'10" (4.83 m)	15'10" (4.83 m)
Overall width . . . . .	6'7" (2.0 m)		6'7" (2.0 m)		6'7" (2.0 m)		6'7" (2.0 m)	
Overall operating height . . . . .	13'4" (4.06 m)	13'6" (4.12 m)	13'4" (4.06 m)	13'6" (4.12 m)	13'4" (4.06 m)	13'6" (4.12 m)	13'6" (4.12 m)	13'6" (4.12 m)
Height to bucket hinge pin . . . . .	10'10" (3.30 m)		10'11" (3.33 m)		10'10" (3.30 m)		10'11" (3.33 m)	
Digging depth below grade — bucket flat . . . . .	4'0" (102 mm)	3'0" (76 mm)	4'0" (102 mm)	3'0" (76 mm)	5'0" (127 mm)	4'0" (102 mm)	4'0" (102 mm)	4'0" (102 mm)
Dump clearance at full height, 45° dump . . . . .	8'9" (2.67 m)	8'11" (2.72 m)	8'5" (2.57 m)	8'7" (2.62 m)	8'8" (2.64 m)	8'10" (2.69 m)	8'10" (2.69 m)	8'10" (2.69 m)
Dump angle at full height . . . . .	45°		45°		45°		52°	
Dump reach at full height . . . . .	23" (584 mm)	23" (584 mm)	27" (686 mm)	27" (686 mm)	29" (737 mm)	29" (737 mm)	29" (737 mm)	29" (737 mm)
Raising time to full height . . . . .	5.1 s	5.1 s	5.0 s	5.0 s	5.3 s	5.3 s	5.3 s	5.3 s
Bucket dumping time . . . . .	0.8 s	0.8 s	0.8 s	0.8 s	0.9 s	0.9 s	0.9 s	0.9 s
Lowering time, power down . . . . .	2.5 s	2.5 s	2.1 s	2.1 s	2.0 s	2.0 s	2.0 s	2.0 s
Bucket rollback @ groundline . . . . .	36°		36°		36°		42°	
Lift capacity to full height . . . . .	4600 lb (2087 kg)	4800 lb (2177 kg)	4600 lb (2087 kg)	4800 lb (2177 kg)	3780 lb (1715 kg)	3990 lb (1810 kg)	3990 lb (1810 kg)	3990 lb (1810 kg)
Clam-open dump height @ 52° . . . . .					9'7" (2.62 m)	9'8" (2.64 m)	9'8" (2.64 m)	9'8" (2.64 m)
Dump reach to dozer blade, clam open @ 52° dump angle . . . . .					13" (330 mm)	13" (330 mm)	13" (330 mm)	13" (330 mm)
Dozing depth . . . . .					1" (25 mm)	1" (25 mm)	1" (25 mm)	1" (25 mm)
Width of dozer cutting edge . . . . .					81.5" (2070 mm)	81.5" (2070 mm)	81.5" (2070 mm)	81.5" (2070 mm)
Digging depth using clam . . . . .					37.3" (947 mm)	37.3" (947 mm)	37.3" (947 mm)	37.3" (947 mm)
Max clam opening . . . . .					36.9" (937 mm)	36.9" (937 mm)	36.9" (937 mm)	36.9" (937 mm)
Moldboard height . . . . .					34.6" (879 mm)	34.6" (879 mm)	34.6" (879 mm)	34.6" (879 mm)

# 480F Backhoe

## HYDRAULIC SYSTEM

Hydraulic pump: Front mounted, positive displacement, gear type.

Pump capacity:

23 gpm @ 2200 rpm @ 2450 psi  
(87 l/min @ 2200 r/min @ 16 892 kPa)

Control valve main relief pressure:

2450 psi (16 892 kPa).

Filtration: 10-micron, full flow replaceable cartridge on return line. Condition indicator light for filter.

Backhoe control valve: Sectional four-spool valve — boom, dipper, bucket, and swing. Foot or optional hand swing, regeneration and hydraulic cushioned swing stops. Mono-cast, two-spool stabilizer valve with pilot checks.

Hydraulic lines: Steel tubing with brazed or flared fittings and wire braid, high pressure hose with crimped full flow fittings.

Backhoe cylinders:

Stabilizers (2)

3.5" dia x 16.38" stroke, 1.75" rod  
(89 mm dia x 416 mm stroke, 44 mm rod)

Swing (2)

3.5" dia x 11" stroke, 1.5" rod  
(89 mm dia x 279 mm stroke, 38 mm rod)

Boom (1)

4" dia x 38.1" stroke, 1.75" rod  
(102 mm dia x 968 mm stroke, 44 mm rod)

Dipper (1) 12' (3.66 m) Backhoe

3.5" dia x 33.12" stroke, 2" rod  
(89 mm dia x 841 mm stroke, 51 mm rod)

Dipper (1) 14' (4.27 m) Backhoe

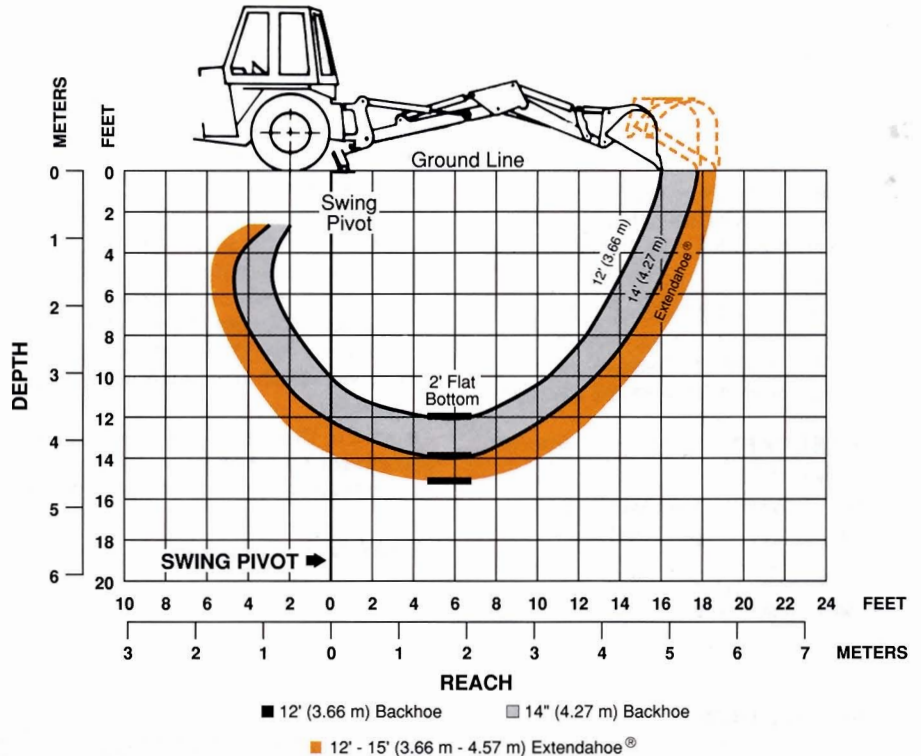
3.75" dia x 33.12" stroke, 2" rod  
(95 mm dia x 841 mm stroke, 51 mm rod)

Bucket (1)

3.25" dia x 26.3" stroke, 2" rod  
(83 mm dia x 668 mm stroke, 51 mm rod)

Dipper Extension (1)

3" dia x 36.4" stroke, 1.5" rod  
(76 mm dia x 925 mm stroke, 38 mm rod)



■ 12' (3.66 m) Backhoe    ■ 14' (4.27 m) Backhoe  
■ 12' - 15' (3.66 m - 4.57 m) Extendahoe®

## OPERATIONAL DATA

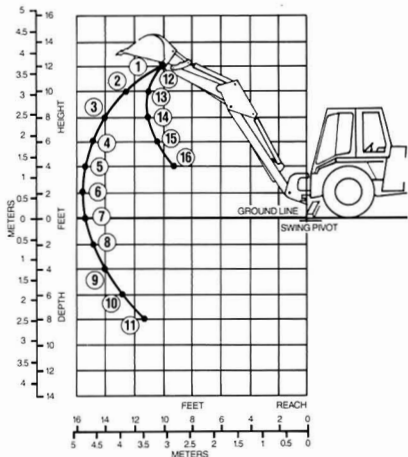
	12' (3.66 m) Backhoe		14' (4.27 m) Backhoe		12'-15' (3.66 m-4.57 m) Extendahoe®	
					RETRACTED	EXTENDED
Digging depth — SAE,						
2' (610 mm) flat bottom	11'11" (3.63 m)	13'10" (4.22 m)	12'0.2" (3.66 m)	15'0.5" (4.59 m)		
Digging depth — SAE, maximum	12'0.3" (3.67 m)	14'0.5" (4.28 m)	12'1.8" (3.70 m)	15'1.8" (4.62 m)		
Overall reach from rear axle centerline	18'9.4" (5.73 m)	20'8.8" (6.32 m)	18'10.1" (5.74 m)	21'9" (6.63 m)		
Digging radius from swing pivot	15'8.6" (4.79 m)	17'8" (5.39 m)	15'9.3" (4.81 m)	18'8.2" (5.70 m)		
Loading height	8'5.1" (2.57 m)	10'1" (3.97 m)	7'7.4" (2.3 m)	8'8.7" (2.66 m)		
Loading reach	7'3.2" (2.22 m)	8'7" (2.62 m)	8'3" (2.52 m)	11'0.5" (3.37 m)		
Swing arc	180°		180°		180°	
Bucket rotation —						
No. 1 position	141.7°	141.7°	135.2°	135.2°		
No. 2 position	131.2°	131.2°	125.7°	125.7°		
Stabilizer spread —						
operating position	8'10.4" (2.70 m)	8'10.4" (2.70 m)	8'10.4" (2.70 m)	8'10.4" (2.70 m)		
transport position	7'3" (2.21 m)	7'3" (2.21 m)	7'3" (2.21 m)	7'3" (2.21 m)		
Digging force						
bucket cylinder, SAE	8461 lbf (37 636 N)	8461 lbf (37 636 N)	8628 lbf (38 379 N)	8628 lbf (38 379 N)		
dipper cylinder, SAE	5021 lbf (22 335 N)	5513 lbf (24 523 N)	5129 lbf (22 817 N)	3711 lbf (16 507 N)		
Leveling angle (maximum slope on which backhoe will make vertical cut)	10°		10°		10°	

# 480F Backhoe

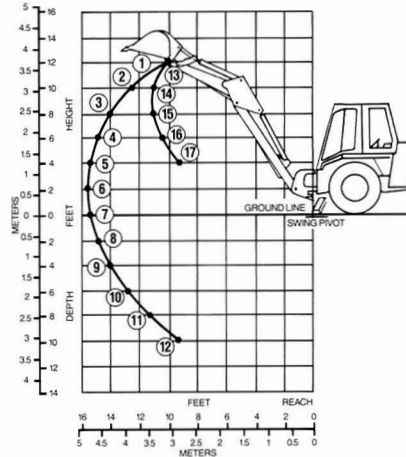
## LIFT CAPACITY CHARTS —

- Lift capacity figures on this chart of 87% of the maximum lift force per SAE Definition J31 and J49 at 2450 psi (16 892 kPa) system relief pressure.
- Backhoe straight to rear lift capacity within 45° either side of prime mover.
- Backhoe within swing arc lift capacity anywhere within full swing arc.
- Figures stated are determined by static tests and do not include dynamic factors.
- Machine equipped with 24" (610 mm) trenching bucket.
- Boom is angled at 65°.

### 12' (3.66 m) BACKHOE LIFT CAPACITY



### 14' (4.27 m) BACKHOE LIFT CAPACITY



#### Backhoe Straight to Rear

Pounds	(kg)	Pounds	(kg)
1. 1827	(829)	9. 1918	(870)
2. 2135	(968)	10. 1882	(854)
3. 2208	(1001)	11. 1918	(870)
4. 2189	(993)	12. 2642	(1198)
5. 2172	(985)	13. 2262	(1026)
6. 2117	(960)	14. 2154	(977)
7. 2081	(944)	15. 2352	(1067)
8. 2008	(911)	16. 3076	(1395)

#### Backhoe Within Swing Arc

Pounds	(kg)
1. *1575	(714)
2. *2000	(907)
3. *1198	(544)
4. *974	(442)
5. *866	(393)
6. *794	(360)
7. *804	(365)
8. *909	(412)

\*Stability limited

#### Backhoe Straight to Rear

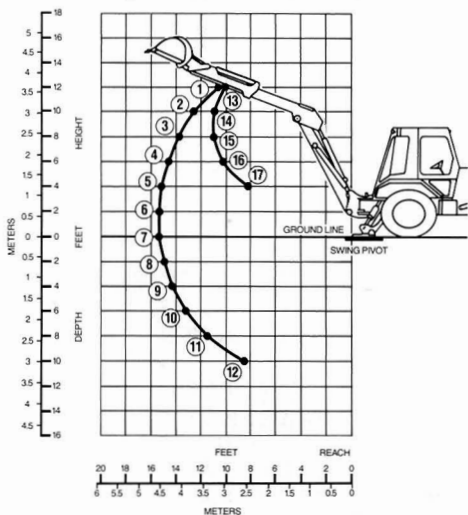
Pounds	(kg)	Pounds	(kg)
1. 1502	(681)	10. 1502	(681)
2. 1646	(747)	11. 1502	(681)
3. 1665	(775)	12. 1611	(731)
4. 1646	(747)	13. 1846	(837)
5. 1629	(739)	14. 1701	(772)
6. 1592	(722)	15. 1810	(821)
7. 1575	(714)	16. 2081	(944)
8. 1556	(706)	17. 2895	(1313)
9. 1520	(690)		

#### Backhoe Within Swing Arc

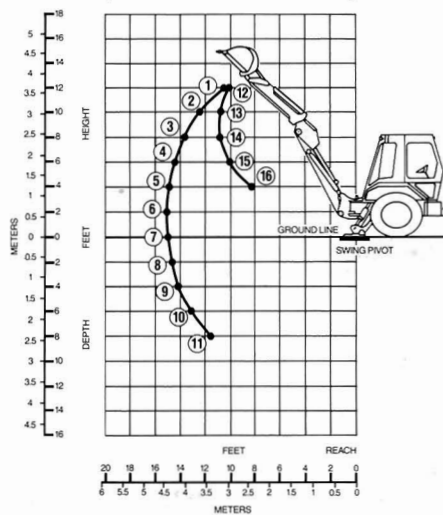
Pounds	(kg)
1. *1245	(565)
2. *1275	(578)
3. *1020	(463)
4. *840	(381)
5. *795	(361)
6. *750	(340)
7. *765	(347)
8. *840	(381)

\*Stability limited

### EXTENDAHOE LIFT CAPACITY (DIPPER EXTENDED)



### EXTENDAHOE LIFT CAPACITY (DIPPER RETRACTED)



#### Backhoe Straight to Rear

Pounds	(kg)	Pounds	(kg)
1. 1086	(492)	10. 1213	(550)
2. 1194	(542)	11. 1230	(558)
3. 1230	(558)	12. 1284	(583)
4. 1213	(550)	13. 1139	(517)
5. 1213	(550)	14. 1049	(476)
6. 1213	(550)	15. 959	(435)
7. 1213	(550)	16. 1086	(492)
8. 1230	(558)	17. 1230	(558)
9. 1230	(558)		

#### Backhoe Within Swing Arc

Pounds	(kg)
1. *1044	(474)
2. *763	(346)
3. *565	(256)
4. *499	(203)
5. *380	(172)
6. *344	(156)
7. *337	(153)
8. *360	(163)

\*Stability limited

#### Backhoe Straight to Rear

Pounds	(kg)	Pounds	(kg)
1. 1520	(690)	9. 1592	(722)
2. 1773	(804)	10. 1556	(706)
3. 1773	(804)	11. 1556	(706)
4. 1756	(796)	12. 2081	(944)
5. 1701	(772)	13. 1756	(796)
6. 1665	(755)	14. 1683	(763)
7. 1629	(739)	15. 1827	(829)
8. 1575	(714)	16. 2570	(1166)

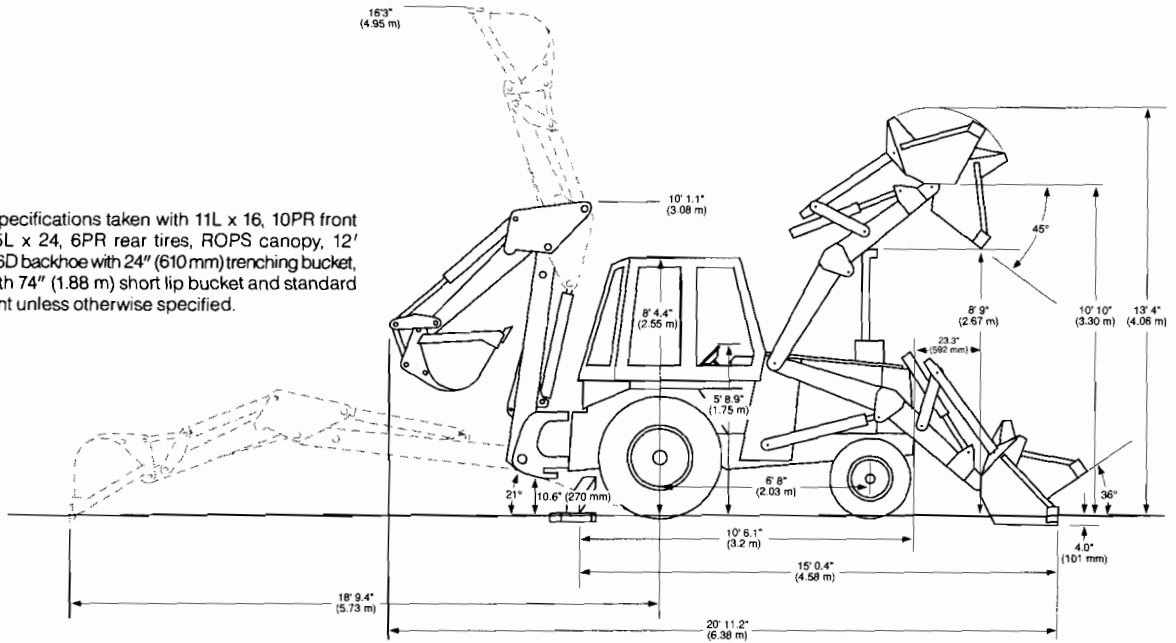
#### Backhoe Within Swing Arc

Pounds	(kg)
1. *1462	(663)
2. *1705	(773)
3. *1118	(507)
4. *843	(382)
5. *703	(319)
6. *641	(291)
7. *641	(291)
8. *710	(322)

\*Stability limited

# Dimensional Data

**NOTE:** Specifications taken with 11L x 16, 10PR front tires, 17.5L x 24, 6PR rear tires, ROPS canopy, 12' (3.66 m) 26D backhoe with 24" (610 mm) trenching bucket, loader with 74" (1.88 m) short lip bucket and standard equipment unless otherwise specified.



## TRACTOR

Overall length	10'6.1" (3.20 m)
Overall width	6'3.3" to 6'11.1" (1.91 m to 2.11 m)
Height: to top of canopy	8'4.5" (2.55 m)
Height: to top of cab	8'4.4" (2.55 m)
Height: to top of exhaust stack	8'9" (2.67 m)
Height: to top of steering wheel	5'8.9" (1.75 m)
Ground clearance (tractor main frame)	12.6" (321 mm)
Front wheel tread (2-WD)	4'11" to 5'2" (1.50 m to 1.58 m)
(4-WD)	5'7" (1.70 m)
Rear wheel tread	5'0" to 5'6" (1.53 m to 1.68 m)
Wheel base (2-WD)	6'8" (2.03 m)
(4-WD)	6'8.5" (2.05 m)

## TRACTOR/LOADER

	74" SHORT LIP	82" LONG LIP	82" 4-IN-1
Overall length	15'0.4" (4.58 m)	15'5.8" (4.72 m)	15'5" (4.7 m)
Overall width	6'7" (2.00 m)	6'8" (2.01 m)	6'8" (2.01 m)
Overall operating height	13'4" (4.06 m)	13'4" (4.06 m)	13'4" (4.06 m)
Height to bucket hinge pin	10'10" (3.30 m)	10'10" (3.30 m)	10'10" (3.30 m)
Digging depth below ground — bucket flat	4.0" (101 mm)	4.0" (101 mm)	5.0" (127 mm)
Dump clearance full height — 45° dump	8'9" (2.67 m)	8'5" (2.57 m)	8'8" (2.69 m)
Dump angle at full height	45°	45°	52°
Dump reach at full height — 45° dump	23.3" (592 mm)	27" (686 mm)	28.7" (729 mm)
Bucket roll back at groundline	36°	36°	42°

## GENERAL PURPOSE BUCKET

## TRACTOR/LOADER/BACKHOE

	EXTENDAHOE®		12'-15' (3.66-457 mm)	
	12' (3.66 m)	14' (4.27 m)	RETRACTED	EXTENDED
Overall length — transport				
Short lip bucket	20'11.2" (6.38 m)	21'2.4" (6.46 m)	21'7" (6.58 m)	N/A
Long Lip bucket	21'3" (6.48 m)	21'6.3" (6.56 m)	21'10.9" (6.68 m)	N/A
4-in-1 bucket	21'3.8" (6.5 m)	21'7" (6.58 m)	22' (6.70 m)	N/A
Overall reach from rear axle centerline	18'9.4" (5.73 m)	20'8.8" (6.32 m)	18'10.1" (5.74 m)	21'9" (6.63 m)
Overall height, maximum	16'3" (4.95 m)	18'3" (5.56 m)	16'3.3" (4.96 m)	19' (5.79 m)
Transport height	10'1.1" (3.08 m)	11'9" (3.58 m)	10'5.7" (3.19 m)	N/A
Overall width — transport	7'3" (2.21 m)	7'3" (2.21 m)	7'3" (2.21 m)	7'3" (2.21 m)
Ground clearance at backhoe				
main frame	10.6" (270 mm)	10.6" (270 mm)	10.3" (262 mm)	10.3" (262 mm)
Angle of departure	21°	21°	21°	21°

# Equipment Data

## STANDARD EQUIPMENT

### TRACTOR

Antifreeze solution to -20°F (-29°C) • Axle, heavy-duty oscillating front • Brakes, parking, over-center • Engine, 63 net hp (47 kW) Case 4-390 diesel • Fenders, rear • Floor plates • Fuel opening, lockable • Gauges and instruments: air cleaner restriction light, alternator charge warning (lamp), condition light for loader and backhoe hydraulic system filter, converter temperature gauge, engine oil pressure warning light, engine water temperature gauge, fuel level gauge, hourmeter, tachometer, voltmeter • Grille, heavy-duty • Lights, one rear working and one red tail • Instrument cluster, illuminated • Muffler, upright oval with deflector • Oil filter, full flow • Power shuttle, with torque converter, 4-speed transaxle with differential lock • ROPS canopy • Seat belt • Seat • Side panels, full length of engine, lockable • Steering, hydrostatic • Throttle, hand and foot • Tires (front), 7.50 x 16, 10PR (I1) • Tires (rear), 14.9 x 24, 6PR, (R4) utility traction tread • Tool box • Wrapper, front

### LOADER

All tractor standard equipment • Single lever control with self leveling • Hydraulic system, complete • Indicator, bucket level • Loader (less bucket) • Support strut, lift arm • Return to dig

### 12' (3.66 m) BACKHOE

All tractor and loader standard equipment • Hydraulic system, complete including three levers, foot swing control • Over-center backhoe (less bucket) model 26D (12') • Stabilizers

### 14' (4.27 m) BACKHOE

All tractor and loader standard equipment • Hydraulic system, complete including three levers, foot swing control • Over-center backhoe (less bucket) model 26D (14') • Stabilizers • Accessory hydraulics

### 12' -15' (3.66 m-4.57 m) EXTENDAHOE

All tractor, loader and backhoe equipment • Hydraulic telescoping Extendahoe, accessory hydraulics.

## OPTIONAL EQUIPMENT

### TRACTOR

Alarm, backup • Antifreeze to -40° F (-40° C) • Beacon, rotating • Emblem, SMV • Floor mat • Full lockup package • Hitch, modular 3-point • Horn • Hourmeter, electric • Lights, combination tail, stop, directional and flasher • Muffler, spark arresting • Noise suppression package • PTO (hydrostatic), 19 hp (14 kW) 540 rpm with 6-tooth SAE 1.375" (35 mm) shaft • Paint, special • ROPS cab, heater and defogger • Seat, deluxe • Start kit, cold weather • Tires, various sizes — see tractor section • 4-wheel drive • Dual rear weights, 2978 lb (1351 kg)

### LOADER

All tractor optional equipment • Bucket teeth • Counterweight, rear • 74" (1.88 m) short lip and 82" (2.08 m) long lip buckets • 82" (2.08 m) 4-in-1 bucket • Aux. loader hydraulics • Wheel weights

### BACKHOE

All tractor and loader optional equipment • Backhoe floor mat • Boom lockout • Dual lever backhoe controls • Street/cemetery stabilizer pads • 12" (305 mm), 18" (457 mm), 24" (610 mm), 30" (762 mm), 36" (914 mm), standard-duty trenching • 18" (457 mm), 24" (610 mm), heavy-duty trenching buckets • 36" (914 mm) bellhole bucket • 3.5" (89 mm) stabilizer cylinders • Oversized stabilizer pads

## APPROXIMATE SHIPPING WEIGHTS

**NOTE:** Specifications taken with 11L x 16 front tires, 17.5L x 24 rear tires, ROPS canopy and standard equipment unless otherwise specified.

### TRACTOR

Drawbar tractor  
w/ROPS canopy . . . 5284 lb (2397 kg)  
Drawbar tractor  
w/ROPS cab . . . . . 5714 lb (2592 kg)

### TRACTOR WITH LOADER (Less Bucket)

Without rear  
counterweight . . . . . 6662 lb (3022 kg)  
Rear counterweight (required with no rear  
attachments) . . . . . add 2978 lb (1351 kg)  
Cab . . . . . add 430 lb (195 kg)  
4-wheel drive . . . . . add 454 lb (206 kg)  
Wheel weights . . . . . add 1000 lb (457 kg)

### TRACTOR LOADER/BACKHOE (Less Buckets)

12' (3.66 m) backhoe . . 9032 lb (4097 kg)  
14' (4.27 m) backhoe . . 9854 lb (4470 kg)  
Extendahoe . . . . . 10,313 lb (4677 kg)

### LOADER BUCKETS (Optional)

Bucket	SAE Capacities		Weight
	Heaped	Struck	
	yd <sup>3</sup> (m <sup>3</sup> )	yd <sup>3</sup> (m <sup>3</sup> )	lb (kg)
74" (1.88 m) short lip	0.78 (0.60)	0.66 (0.50)	600 (272)
82" (2.08 m) long lip	1.0 (0.76)	0.87 (0.67)	760 (325)
82" (2.08 m) 4-in-1	1.0 (0.76)	0.81 (0.62)	1130 (513)

Wheel weights required for 4-in-1® bucket when used on 12' (3.66 m) and 14' (4.27 m) backhoe.

### BACKHOE BUCKETS (Optional)

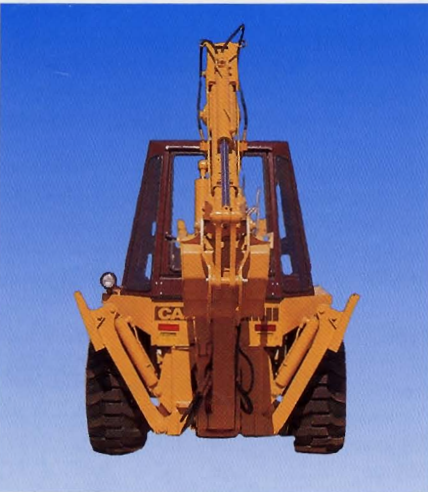
Type	Width		Weight
	inch (mm)	lb (kg)	
Trenching . . . . .	12 . (305)	198 . . (90)	
Trenching . . . . .	18 . (457)	238 . . (108)	
Trenching . . . . .	24 . (610)	270 . . (122)	
Bellhoe . . . . .	36 . (914)	266 . . (121)	

### MOD HITCH

3-point hitch . . . . . 631 lb (286 kg)  
Extendahoe and Construction King are trademarks of the J I Case Company.

# 480F Loader/Backhoe

Equipment Data



**Sold and serviced by:**

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

**IMPORTANT**  
J I Case Company reserves the right to change these specifications without notice and without incurring any obligation relating to such changes. Unit illustrated is equipped with non-standard equipment.

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