

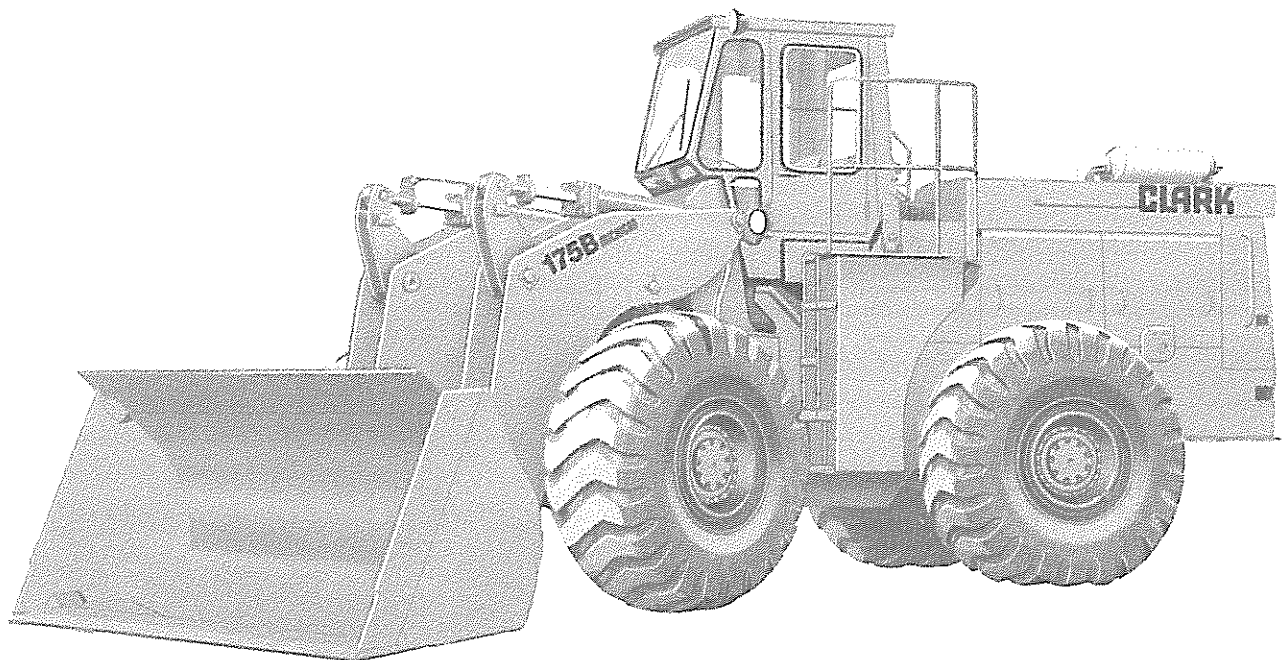
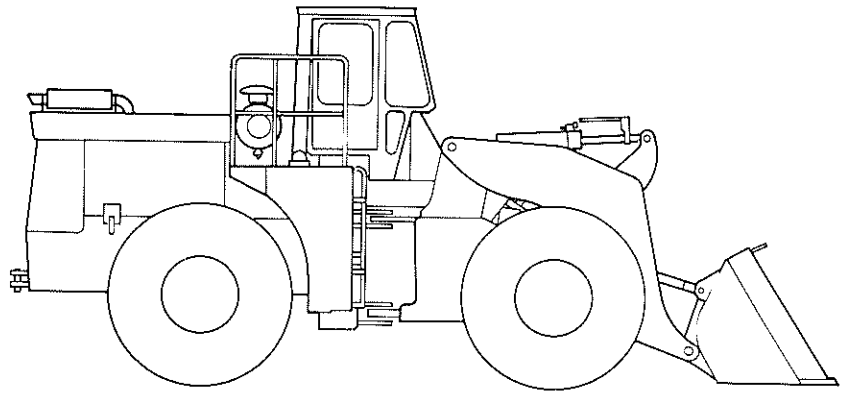
CLARK

175B

MICHIGAN

TRACTOR SHOVEL

- Complete powertrain designed and manufactured by Clark
- Large capacity hydraulic system... power-sensing, demand-type with dual filtration
- Rugged, double-plate boom design with trunnion mounted cylinders
- Buckets available from 4½ to 6 cu. yd. (3,4 to 4,6 m³)
- GM 8V-71N engine with 273 flywheel horsepower or Cummins NT-855-C with 279 flywheel horsepower
- Disc brakes on all wheels... manually or automatically applied emergency brake



ENGINE

Make	GM	Cummins
Model	8V-71N	NT-855C
*Maximum h.p.	304	310
*Flywheel h.p.	273	279
Governed RPM	2100	2100
Maximum torque, ft. lbs.	800 @ 1600	890 @ 1500
(kg-m)	(110,6 @ 1600)	(122,8 @ 1500)
Bore and stroke, in.	4.25 x 5.00	5.50 x 6.00
(mm)	(108 x 127)	(139,7 x 152,4)
Number of cylinders	8	6
Displacement, cubic in.	567.4	855
(litres)	(9,3)	(14,0)
Electrical system (alternator)	24V, 30 amp	24V, 30 amp

*Maximum horsepower based on SAE standard J816 barometric pressure of 29.35 in. hg. (74,62 cm hg) and ambient temperature of 85°F (29,4°C) at maximum engine speed with fuel pump, water pump, and lubricating oil pump.

**Net usable horsepower at engine flywheel under SAE standard J816 with standard engine fan, alternator, water pump, lubricating oil pump, air compressor and air cleaner.

POWER TRAIN

TORQUE CONVERTER: Clark high-efficiency single-stage industrial type; with 3.09:1 torque multiplication ratio.

TRANSMISSION: Clark countershaft type powershift, with four speeds forward, four speeds reverse. Travel speeds, MPH (km/hr):*

1st	2nd	3rd	4th
4.0	7.5	13.0	22.0
(6,4)	(12,0)	(20,9)	(35,4)

*Measured with 26.5-25, 20 PR (L-3) tires.

DIFFERENTIAL: Clark limited slip front and rear.

AXLES: Heavy-duty Clark planetary design with single-piece cast steel housing. Front axle fixed, rear axle oscillates a total of 24°. Vertical wheel travel of 15.0" (381 mm) with all wheels remaining on ground.

PLANETARY DRIVES: Clark low-friction, roller bearing planetary in each wheel. Planetary units can be removed without removing wheels and brakes.

TIRES

Tubeless, nylon body, loader/dozer type 26.5-25, 20PR (L-3)

Other tires available: 26.5-25, 20PR (L-2, L-4, L-5)
26.5-25, 24PR (L-3)
29.5-25, 16PR (L-3)

STEERING SYSTEM

Articulated frame; full hydraulic power steering with mechanical follow-up.

ANGLE OF STEER: Each direction 35°; total 70°.

PUMP: Tandem gear-type design, torque converter mounted; high volume at low engine RPM assures fast response, safe steering. Total pump output is 100 GPM (378,5 l/min) — 2 sections, each rated 50 GPM (189,3 l/min) @ 2000 RPM and 1750 PSI (123,0 kg/cm²).

RELIEF PRESSURE: 1750 PSI (123,0 kg/cm²).

CYLINDERS: Two double-acting with chrome plated piston rods. Bore and stroke — 4.5 x 18.5 in. (114,3 x 469,9 mm).

BRAKES (SAE J237)

SERVICE: Four wheel air-over-hydraulic self-adjusting caliper discs. Application of left pedal also neutralizes transmission in Forward only.

EMERGENCY: Axle-by-axle system. Automatically actuated by low air pressure or manually applied through dash-mounted control; audible and visual alarm.

PARKING: Mechanical on front axle input shaft.

HYDRAULIC SYSTEM

Closed and pressurized power-sensing, demand-type system with a capacity of 115 gals (436,0 litres); oil supplied from sturdy plate steel reservoir. Hand hole in tank for easy cleaning; in-tank magnet provides extra protection.

BOOM CONTROLS: Valve has four positions: raise, hold, lower, float. Automatic kickout adjustable for any position between maximum boom reach and full lift height.

BUCKET CONTROLS: Valve has three positions: rollback, hold, dump. Automatic bucket positioner adjustable to any desired load-angle.

PUMP: Tandem gear-type design, torque converter mounted. Total pump output is 112 GPM (424,0 l/min) — front section rated 56 GPM (212,0 l/min) @ 2000 RPM and 2000 PSI (140,6 kg/cm²) and rear section rated 56 GPM (212,0 l/min) @ 2000 RPM and 1750 PSI (123,0 kg/cm²).

VALVE: Split spool with built-in pressure relief valve; actuated by remote mounted pilot valve. Mounted on front frame for easy access.

RELIEF PRESSURE: 2200 PSI (154,7 kg/cm²).

CYLINDERS: Two boom and two bucket, all double-acting. Boom, bore & stroke — 7.00" x 43.0" (177,8 mm x 1092,2 mm). Bucket, bore & stroke — 6.00" x 23.62" (152,4 mm x 599,9 mm).

FILTERS: Two full-flow 140 micron suction filters and two full-flow 15 micron return filters in reservoir.

HYDRAULIC SPEEDS

Raising time (with load)	7.5 sec.
Lowering time (empty)	4.9 sec.
Dumping time (with load)	1.8 sec.
Total cycle	14.2 sec.

SERVICE CAPACITIES

	U.S. Gals.	(litres)
Cooling system	24.0	(90,8)
Crankcase (GM)	5.5	(20,8)
Crankcase (Cummins)	6.0	(22,7)
Torque converter & transmission	11.0	(41,6)
Front & rear axle differentials (each)	9.0	(34,1)
Front & rear wheel hubs (each)	1.75	(6,6)
Fuel tank	116.0	(439,1)
Hydraulic reservoir	95.0	(359,6)

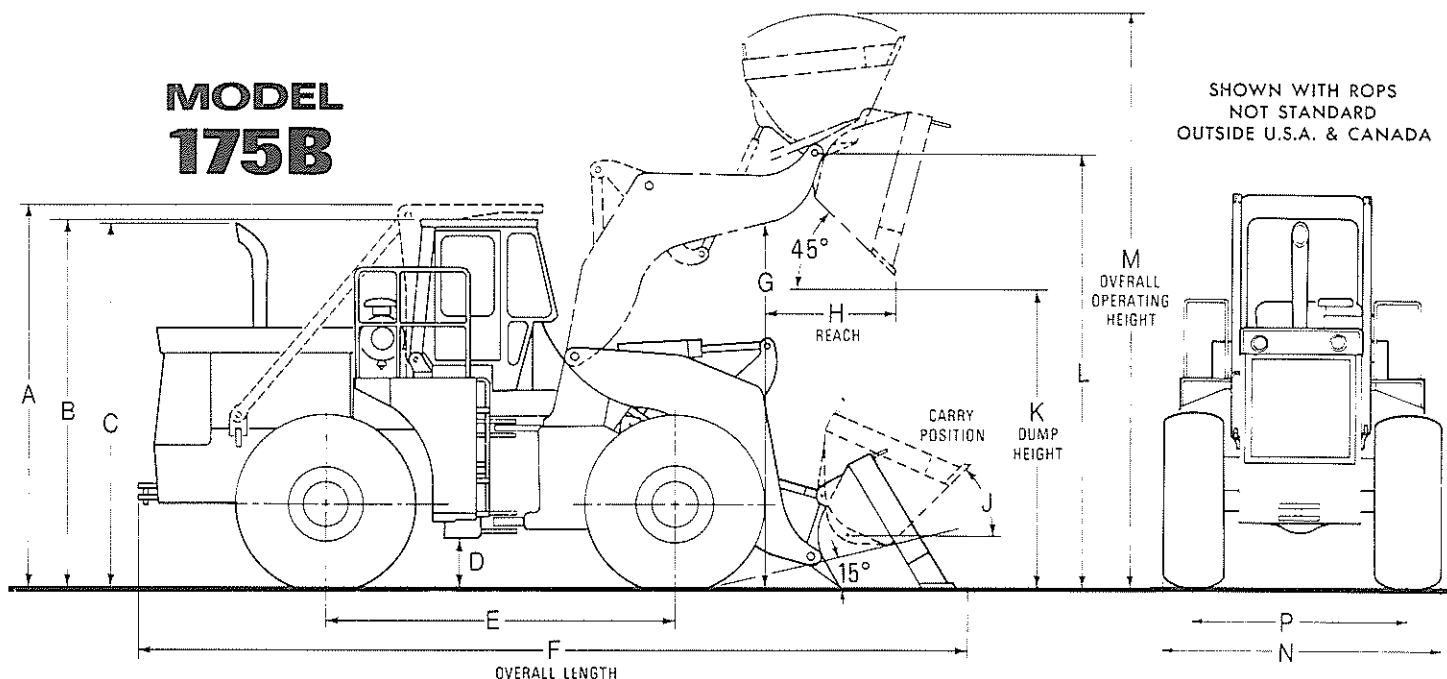
STANDARD EQUIPMENT

Ladder & Handrails (SAE J185); Reverse Warning Alarm* (SAE J994); ROPS Canopy* (SAE J394); Seat Belt* (SAE J386); Boom Kickout*; Bucket Positioner; Bucket Seat, adjustable; Caps, lockable (fuel, hydraulic, radiator); Covers, Instrument Panel, lockable; Drawbar; Horn; Lights, work (2 front, 2 rear); Lights, Tail/Stop; Sealed Bucket Pins; Service Platforms, rear.

*Optional outside U.S.A. and Canada.

GAUGES: Air pressure; ammeter; engine temperature, oil pressure, hourmeter; torque converter temperature.

FILTERS: Engine oil, fuel, air (dual-element dry-type); hydraulic oil (suction and return); torque converter/transmission.



MACHINE DIMENSIONS (with 5 cu. yd. bucket ▢)*

Tire Size	A	B***	C	D	E	F	G	H	J	K	L	M	N	P
26.5-25 — L-2, L-3 (mm)	12' 6" (3810)	12' 0" (3658)	11' 8" (3556)	1' 8" (508)	11' 3" (3429)	**	11' 8" (3556)	4' 4" (1321)	46°	9' 11" (3023)	13' 11" (4242)	18' 3.5" (5575)	9' 9" (2972)	7' 6" (2286)
26.5-25 — L-4 (mm)	12' 7" (3835)	12' 1" (3683)	11' 9" (3581)	1' 9" (533)	11' 3" (3429)	**	11' 9" (3581)	4' 3" (1295)	46°	10' 0" (3048)	14' 0" (4267)	18' 4.5" (5601)	9' 9" (2972)	7' 6" (2286)
26.5-25 — L-5 (mm)	12' 8" (3861)	12' 2" (3708)	11' 10" (3607)	1' 10" (559)	11' 3" (3429)	**	11' 10" (3607)	4' 2.5" (1283)	46°	10' 1" (3073)	14' 1" (4293)	18' 5.5" (5626)	9' 9" (2972)	7' 6" (2286)
29.5-25 — L-3 (mm)	12' 7.5" (3848)	12' 1.5" (3696)	11' 9.5" (3594)	1' 9.5" (546)	11' 3" (3429)	**	11' 9.5" (3594)	4' 1.5" (1257)	46°	10' 0.5" (3060)	14' 0.5" (4279)	18' 5" (5613)	10' 0" (3048)	7' 6" (2286)

*Per SAE J732c & J742b (1969). **See Operating Data. ***For Non-ROPS Cab Deduct 4" (101,6 mm).

OPTIONAL EQUIPMENT

and approximate installation weights

	Lbs.	(Kg)
Acoustical Kit, Cockpit (with floormat)	80	(36,3)
Air Conditioner	150	(68,0)
Alternator (GM, 65 amp or Cummins, 75 amp) . .	70	(31,8)
Auxiliary Steering Kit (electric)	100	(45,4)
Belly Guard, Front Frame	800	(362,9)
Belly Guard, Rear Frame	350	(158,8)
Bucket Teeth (8)	300	(136,1)
Cab (non-ROPS with safety glass, acoustical lining)	570	(258,6)
Cab Headlights, (2)	10	(4,5)

Counterweight (in lieu of hydroinflation)	2200	(997,9)
Dryer, Brake Air System	30	(13,6)
Engine Compartment Side Panels	110	(49,9)
Rearview Mirrors (2)	10	(4,5)
ROPS Cab (with acoustical lining, front wipers, lights) (SAE J394)	1140	(517,1)
Suspension Seat	100	(45,4)
3-Spool Valve, Piping & Controls	300	(136,1)
Windshield Wiper, Front	10	(4,5)
Windshield Wiper, Rear*	10	(4,5)
Winterization Group (heater, defroster & evaporator)	55	(24,9)

*Not available on ROPS cab.

Data presented here conforms to applicable standards recommended by the Society of Automotive Engineers; SAE loader ratings — as governed by standard J732c and J742b (1969) — are denoted in the text by△

OPERATING DATA (with 26.5-25 tires)

	Straight Edge Rock	Spade Nose Rock	General Purpose ■	General Purpose	Light Material
Capacity, Rated (heaped), cu. yd. (m ³)△	4.5 (3,4)	4.5 (3,4)	5.0 (3,8)	5.5 (4,2)	6.0 (4,6)
Rated (struck), cu. yd. (m ³)△	3.72 (2,8)	3.79 (2,8)	4.22 (3,2)	4.66 (3,6)	5.09 (3,9)
Cutting Edge Width, (mm)△	124" (3150)	124" (3150)	124" (3150)	124" (3150)	124" (3150)
†Dump Height @ Full Lift and 45° Discharge Angle* (mm)△	10' 2" (3099)	9' 9" (2972)	9' 11" (3023)	9' 9" (2972)	9' 7" (2921)
†Reach @ Full Lift and 45° Discharge* (mm)△	4' 1" (1244)	4' 9" (1448)	4' 4" (1321)	4' 5" (1346)	4' 8" (1422)
†Reach @ 45° Discharge Angle and 7' (2130 mm) Height* (mm) ..△	5' 8" (1727)	6' 3" (1905)	5' 11" (1803)	6' 0" (1829)	6' 3" (1905)
Overall Length (mm) (GM)**△	26' 0" (7925)	26' 8" (8128)	26' 4" (8026)	26' 6" (8077)	26' 9" (8103)
†Overall Operating Height* (mm)△	17' 3" (5258)	18' 0" (5486)	17' 6" (5334)	17' 8" (5385)	17' 11" (5461)
Clearance Circle (bucket in carry position) (m)△	48' 2.5" (14,69)	48' 2.25" (14,69)	48' 3" (14,71)	48' 3.25" (14,71)	48' 3.75" (14,73)
Breakout Force, lbs. (kg)△	36,900 (16 738)	34,000 (15 422)	34,000 (15 422)	32,800 (14 878)	30,700 (13 926)
Static Tipping Load, Straight lbs. (kg)△	35,900 (16 284)	35,600 (16 148)	35,600 (16 148)	35,300 (16 012)	34,900 (15 830)
Full (35°) Turn, lbs. (kg)△	32,800 (14 878)	32,500 (14 742)	32,500 (14 742)	32,200 (14 606)	31,800 (14 424)
Operating Weight,*** lbs. (kg) Total△	51,410 (23 319)	51,710 (23 455)	51,710 (23 455)	52,010 (23 591)	52,210 (23 682)

†Changes with tire size — refer to machine dimensions.

*Dimensions change with tires other than 26.5-25 (L-2 or L-3); add (or subtract) as applicable:

**Add 14" (356 mm) for Cummins powered model.

26.5-25 (L-4)
26.5-25 (L-5)
29.5-25 (L-3)

VERTICAL

+0.8" (20,3 mm)
+1.7" (43,2 mm)
+1.6" (40,6 mm)

HORIZONTAL

-0.4" (10,2 mm)
-0.8" (20,2 mm)
-2.4" (61,0 mm)

***Approximate weight; includes bucket shown and ROPS canopy plus 2900 lbs. (1315 kg) rear tire hydroinflation and 2000 lbs. (907 kg) counterweight; a change in tire size or the addition of either optional equipment or attachments will affect both operating weight and tipping loads. These changes are shown below for certain selected items.

	CHANGE IN OPERATING WEIGHT		CHANGE IN FULL TURN STATIC TIPPING LOAD	
	lbs.	(kg)	lbs.	(kg)
26.5-25, 20PR (L-2)	-3620	(-1640)	-4230	(-1918)
26.5-25, 20PR (L-3)	-2900	(-1315)	-3770	(-1710)
26.5-25, 20PR (L-4)	-1730	(-785)	-3010	(-1365)
26.5-25, 20PR (L-5)	-740	(-335)	-2370	(-1075)
29.5-25, 16PR (L-3)	-2080	(-945)	-3240	(-1469)
26.5-25, 20PR (L-2) with 75% rear tire Ca Cl ₂ hydroinflation by volume	-715	(-325)	-460	(-210)
26.5-25, 20PR (L-3) with 75% rear tire Ca Cl ₂ hydroinflation by volume	0	(0)	0	(0)
26.5-25, 20PR (L-4) with 75% rear tire Ca Cl ₂ hydroinflation by volume	1170	(530)	760	(345)
26.5-25, 20PR (L-5) with 75% rear tire Ca Cl ₂ hydroinflation by volume	2160	(980)	1400	(635)
29.5-25, 16PR (L-3) with 75% rear tire Ca Cl ₂ hydroinflation by volume	1940	(880)	1260	(570)
Cab (non-ROPS with safety glass, acoustical lining)	570	(255)	400	(180)
Counterweight (in lieu of hydroinflation)	-700	(-315)	0	(0)
ROPS Canopy (removal)	-1100	(-500)	-770	(-350)
ROPS Cab	40	(18)	0	(0)

MATERIALS AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE OR OBLIGATION

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Bulletin 175B
8M-BP (9/76)
Printed in U.S.A.