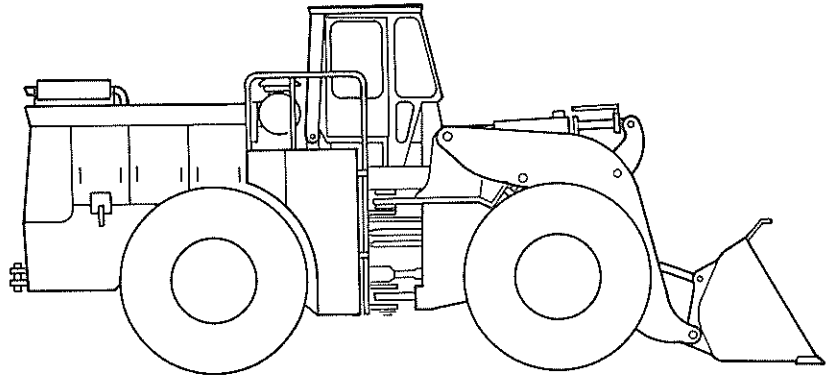


CLARK

275B 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 6½ to 8 cu. yd. (5,0 to 6,1 m³)
- Cummins NTA-855-C engine... 342 flywheel horsepower (255 kW)
- Air brakes on all wheels... manually or automatically applied emergency brake



ENGINE

Make	Cummins
Model	NTA-855-C
*Maximum h.p. (kW)	380 (283)
**Flywheel h.p. (kW)	342 (255)
Governed RPM	2300
Maximum torque, ft. lbs.	960 @ 1650
(N•m)	(1302 @ 1650)
Bore and stroke, in.	5.5 x 6.0
(mm)	(139,7 x 152,4)
Number of cylinders	6
Displacement, cubic in.	855
(litres)	(14,0)
Electrical system (alternator)	24 V, 75 A

*Maximum horsepower of basic engine under S.A.E. standard J816 — barometric pressure of 29.38 in. hg. (74,62 cm hg), 85°F (29,4°C) and maximum engine speed with fuel pump, water pump, and lubricating oil pump.

**Net usable horsepower at engine flywheel under S.A.E. standard J816 — barometric pressure of 29.38 in. hg. (74,62 cm hg), 85°F (29,4°C) and governed engine speed with fan, alternator, air cleaner and air compressor.

POWER TRAIN

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

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

1st	2nd	3rd	4th
3.6	6.6	11.2	19.3
(5,8)	(10,6)	(18,0)	(31,0)

*Measured with 29.5-29, 22 PR (L-4) 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 11.00" (279,4 mm) with all wheels remaining on ground.

PLANETARY DRIVES: Clark low-friction, roller bearing planetary in each wheel.

TIRES

Tubeless, nylon body, loader/dozer type 29.5-29, 22PR (L-4)

Other tires available:

29.5-29, 16PR Radial
29.5-29, 22PR (L-2, L-3, L-5)
29.5-29, 28PR (L-2, L-3, L-4, L-5)
29.5-29, 34PR (L-2, L-3, L-4)

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 at low engine speed. Total pump output is 86 GPM (325,5 litres/min) — 2 sections, each rated 43 GPM (162,8 litres/min) @ 1500 RPM and 1750 PSI (12066 kPa).

RELIEF PRESSURE: 1750 PSI (12066 kPa).

CYLINDERS: Two double-acting with chrome plated piston rods. Bore and stroke — 5.25 x 16.50 in. (133,4 mm x 419,1 mm).

BRAKES (SAE J1152)

SERVICE: Four wheel straight air, shoe type. Application of left pedal also neutralizes transmission in Forward only. In-line air dryer removes moisture from brake air system.

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

PARKING: Mechanical disc on front axle input shaft.

HYDRAULIC SYSTEM

Closed and pressurized power-sensing, demand-type system with a capacity of 192 U.S. gals (726,8 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 electric bucket positioner adjustable to any desired loading angle.

PUMP: Tandem gear-type design, torque converter mounted. Total pump output is 114 GPM (431,5 litres/min) — large section rated 62 GPM (234,7 litres/min) @ 2300 RPM and 1800 PSI (12411 kPa) and small section rated 52 GPM (196,8 litres/min) @ 2300 RPM and 2200 PSI (15168 kPa).

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 (15168 kPa).

CYLINDERS: Two boom and two bucket, all double-acting. Boom, bore & stroke — 9.00" x 44.8" (228,6 mm x 1137,9 mm). Bucket, bore & stroke — 7.00" x 25.5" (177,8 mm x 647,7 mm).

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

HYDRAULIC SPEEDS

Raising time (with load)	8.5 s
Lowering time (empty)	6.0 s
Dumping time (with load)	2.1 s
Total cycle	16.6 s

SERVICE CAPACITIES

	U.S. Gal.	(litres)
Cooling system	21.0	(79,5)
Crankcase	11.0	(41,6)
Torque converter & transmission	15.5	(58,7)
Front & rear axle differentials (each)	9.0	(34,1)
Front & rear wheel hubs (each)	3.0	(11,4)
Fuel tank	165.0	(624,5)
Hydraulic reservoir	165.0	(624,5)

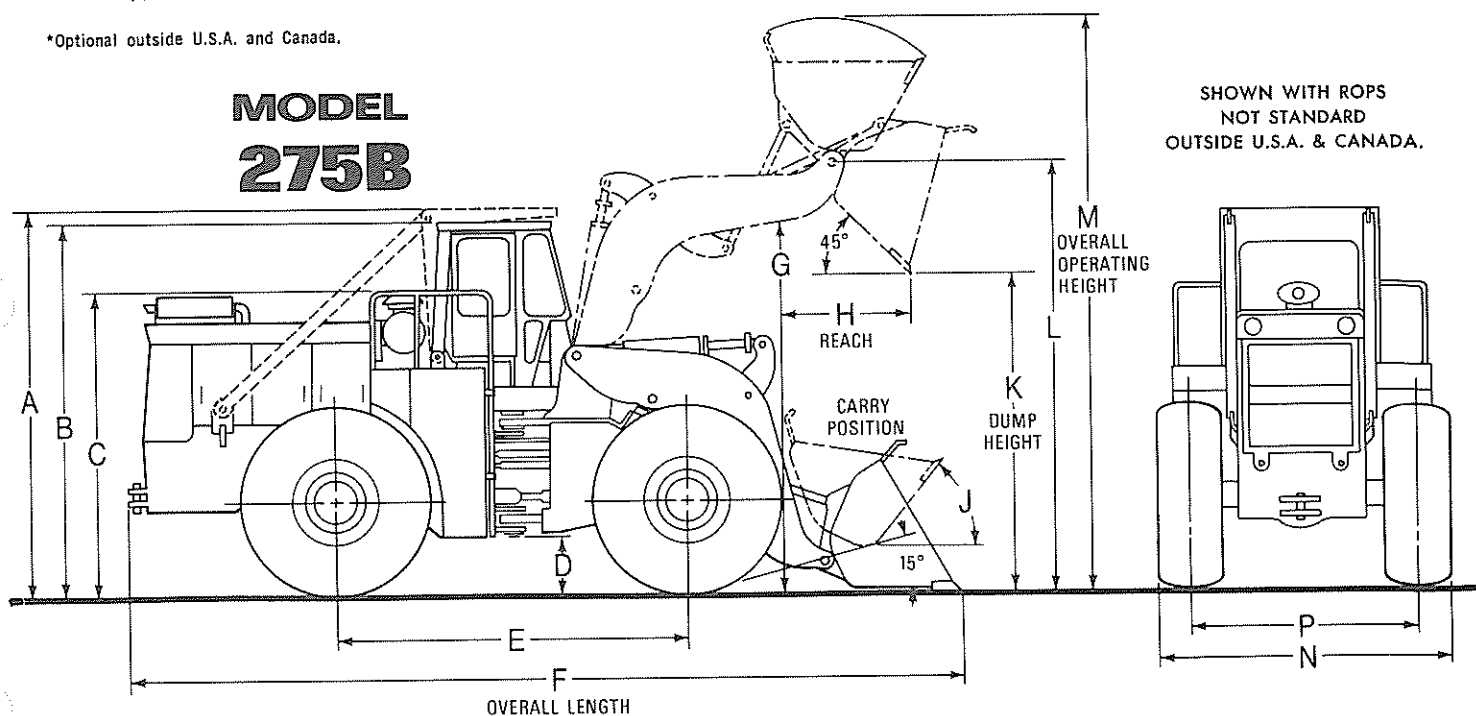
STANDARD EQUIPMENT

Ladder & Handrails (SAE J185); Reverse Warning Alarm* (SAE J994); ROPS Canopy* (SAE J1040); Seat Belt* (SAE J386); Boom Kickout*; Bucket Positioner; Bucket Seat, adjustable; Caps, lockable (fuel, hydraulic, radiator); Covers, Instrument Panel, lockable; Drawbar; Dryer, Brake Air System; 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; engine temperature, oil pressure; hourmeter; voltmeter; torque converter temperature.

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



MACHINE DIMENSIONS*

Tire Size	A	B	C	D	E	F	G	H	J	K	L	M	N	P
29.5-29 — L-2 (mm)	13' 2" (4013)	12' 8" (3861)	10' 5" (3175)	1' 7" (482)	12' 2" (3708)	**	12' 9" (3886)	**	44°	**	14' 11" (4547)	**	11' 3" (3429)	8' 9.5" (2731)
29.5-29 — L-3 (mm)	13' 2" (4013)	12' 8" (3861)	10' 5" (3175)	1' 7" (482)	12' 2" (3708)	**	12' 9" (3886)	**	44°	**	14' 11" (4547)	**	11' 3" (3429)	8' 9.5" (2731)
29.5-29 — L-4 (mm)	13' 3" (4039)	12' 9" (3886)	10' 6" (3200)	1' 8" (507)	12' 2" (3708)	**	12' 10" (3911)	**	44°	**	15' 0" (4572)	**	11' 3" (3429)	8' 9.5" (2731)
29.5-29 — L-5 (mm)	13' 3.5" (4051)	12' 9.5" (3899)	10' 6.5" (3213)	1' 8.5" (520)	12' 2" (3708)	**	12' 10.5" (3924)	**	44°	**	15' 0.5" (4585)	**	11' 3" (3429)	8' 9.5" (2731)

*Per SAE J732 & 742 **See Operating Data.

OPTIONAL EQUIPMENT and approximate installed weights

	lbs	(kg)		lbs	(kg)
Acoustical Kit, Cockpit (with floormat)	80	(36,3)	Rearview Mirrors (2)	10	(4,5)
Air Conditioner	150	(68,0)	ROPS Cab (with acoustical lining, front wiper, lights) (SAE J1040)	1140	(517,1)
Auxiliary Steering Kit (electric)	150	(68,0)	Suspension Seat	100	(45,4)
Belly Guard, Front Frame	800	(362,9)	3-Spool Valve, Piping & Controls	350	(158,8)
Belly Guard, Rear Frame	350	(158,8)	Windshield Wiper, Front	10	(4,5)
Bucket Teeth (8)	400	(181,4)	Windshield Wiper, Rear*	10	(4,5)
Cab (non-ROPS with safety glass, acoustical lining)	570	(258,6)	Winterization Group (heater, defroster)	55	(24,9)
Cab Headlights (2)	10	(4,5)			
Counterweight (in lieu of hydroinflation)	3300	(1496,9)			
Engine Compartment Side Panels (6)	110	(49,9)			

*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 J732 and J742 — are denoted in the text by△

OPERATING DATA [with 29.5-29, 22 PR (L-4) tires]

Bucket Type	Straight Edge Rock	Spade Nose Rock	General Purpose	Light Material
Capacity, Rated (heaped), cu. yd. (m³)△	6.5 (5,0)	6.5 (5,0)	7.0 (5,4)	8.0 (6,1)
Rated (struck), cu. yd. (m³)△	5.5 (4,2)	5.5 (4,2)	5.9 (4,5)	6.7 (5,1)
Cutting Edge Width, (mm)△	138.5" (3518)	138.5" (3518)	138.5" (3518)	138.5" (3518)
Dump Height @ Full Lift and 45° Discharge Angle* (mm)△	10' 6" (3200)	10' 1" (3073)	10' 5.5" (3188)	10' 3" (3124)
Reach @ Full Lift and 45° Discharge* (mm)△	4' 6" (1372)	4' 9.5" (1461)	4' 5.25" (1353)	4' 8" (1422)
Reach @ 45° Discharge Angle and 7' (2130 mm) Height* (mm) △	6' 10.75" (2108)	7' 2.5" (2197)	6' 10.5" (2096)	7' 1" (2159)
Overall Length (mm)△	29' 0" (8839)	29' 9" (9068)	29' 1" (8865)	29' 6" (8992)
Overall Operating Height* (mm)△	19' 10" (6045)	19' 10" (6045)	20' 2" (6147)	20' 6" (6248)
Clearance Circle (bucket in carry position) (m)△	54' 6" (16,6)	54' 7" (16,6)	54' 6" (16,6)	54' 8" (16,7)
Breakout Force, lbs. (N)△	51,800 (230418)	44,500 (197946)	51,000 (226859)	46,600 (207287)
Static Tipping Load, Straight, lbs. (kg)△	48,070 (21 805)	47,740 (21 655)	47,740 (21 655)	46,970 (21 306)
Full (35°) Turn, lbs. (kg)△	43,700 (19 822)	43,400 (19 686)	43,400 (19 686)	42,700 (19 369)
Operating Weight,** lbs. (kg) Total△	76,580 (34 737)	76,885 (34 875)	76,885 (34 875)	77,585 (35 193)

*Changes with tires other than 29.5-29, 22PR (L-4); add (or subtract) as applicable:

	VERTICAL	HORIZONTAL
29.5-29, 22PR (L-2)	0" (0 mm)	+ .3" (7,6 mm)
29.5-29, 22PR (L-3)	-.8" (-20,3 mm)	+ .75" (19 mm)
29.5-29, 22PR (L-5)	+1.6" (40,6 mm)	-.75" (-19 mm)
29.5-29, 16PR radial	0" (0 mm)	0" (0 mm)

**Approximate weight; includes bucket shown and ROPS canopy plus 4,600 lbs. (2087 kg) rear tire hydroinflation; 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. Changes resulting from use of 28PR or 34PR tires are nominal; use data below in such cases.

	CHANGE IN OPERATING WEIGHT		CHANGE IN FULL TURN STATIC TIPPING LOAD	
	lbs	(kg)	lbs	(kg)
29.5-29, 22PR (L-2)	-7040	(-3193)	-7680	(-3484)
29.5-29, 22PR (L-3)	-5960	(-2703)	-6995	(-3173)
29.5-29, 22PR (L-4)	-4600	(-2087)	-6100	(-2767)
29.5-29, 16PR radial	-4600	(-2087)	-6100	(-2767)
29.5-29, 22PR (L-5)	-2890	(-1311)	-4980	(-2259)
29.5-29, 22PR (L-2) with 75% rear tire Ca Cl ₂ hydroinflation by volume	-2440	(-1107)	-1580	(-717)
29.5-29, 22PR (L-3) with 75% rear tire Ca Cl ₂ hydroinflation by volume	-1365	(-619)	-895	(-406)
29.5-29, 22PR (L-4) with 75% rear tire Ca Cl ₂ hydroinflation by volume	0	(0)	0	(0)
29.5-29, 16PR radial with 75% rear tire Ca Cl ₂ hydroinflation by volume	0	(0)	0	(0)
29.5-29, 22PR (L-5) with 75% rear tire Ca Cl ₂ hydroinflation by volume	1710	(776)	1120	(508)
Cab (non-ROPS with safety glass, acoustical lining)	570	(259)	400	(181)
Counterweight (in lieu of hydroinflation)	-1300	(-590)	0	(0)
ROPS canopy (removal)	-1100	(-499)	-1060	(-481)
ROPS cab	40	(18)	14	(6)

MATERIALS AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE OR OBLIGATION

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