

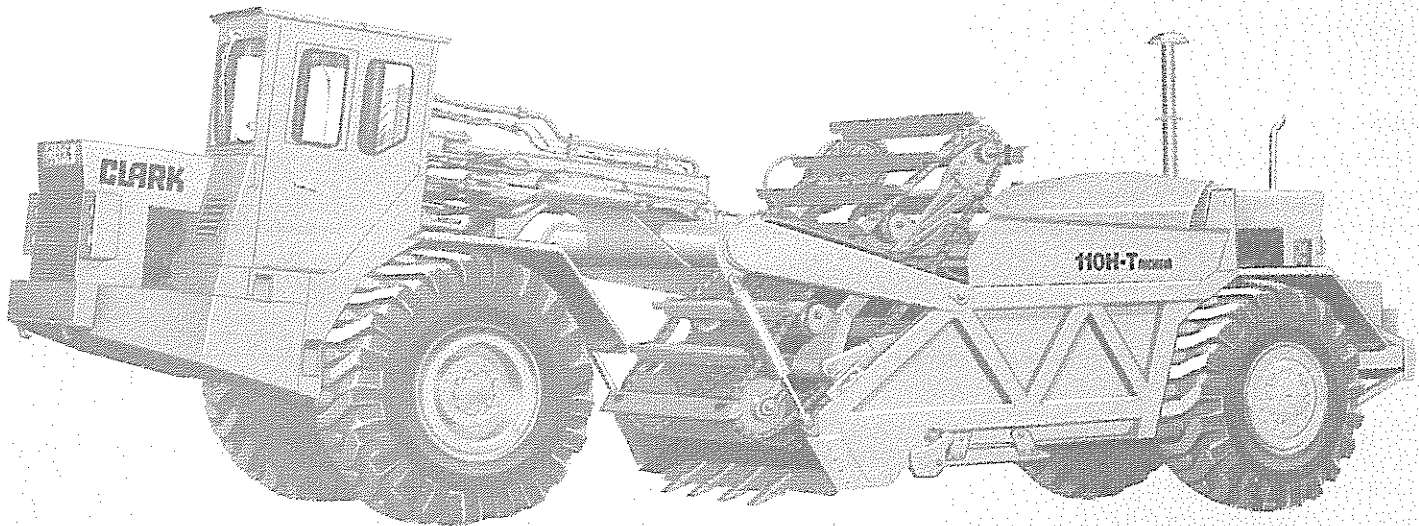
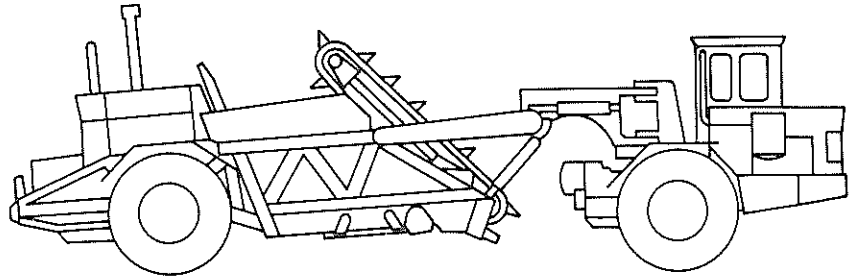
CLARK

110H-T

MICHIGAN

TWIN ENGINE ELEVATING SCRAPER

- Complete powertrain designed and manufactured by Clark
- Twin GM 4-71N engines...total of 280 flywheel horsepower
- Hydrostatic steering with hydraulic follow-up
- Welded construction bowl with fixed moldboard
- Patented rolling floor with automatic strike-off...positive ejection
- Drum brakes on all wheels...manually or automatically applied emergency brake



ENGINE (Front and Rear)

Make	GM
Model	4-71N
*Maximum horsepower	152
**Flywheel horsepower	140
Governed RPM	2100
Maximum torque, ft. lbs.	432 @ 1400
(kg-m)	(59,7 @ 1400)
Bore and Stroke, in.	4.25 x 5.00
(mm)	(107,9 x 127,0)
Number of cylinders	4
Displacement, cu. in.	284
(litres)	(4,65)
Electrical system (generator)	24 volt, 20 amp

*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, 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, generator, air cleaner and air compressor.

POWERTRAIN (Front & Rear)

TORQUE CONVERTER: Clark high-efficiency industrial type, single-stage with 1.82:1 torque multiplication ratio.

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

	Lo-Lo	1st	2nd	3rd	4th
Forward	1.7 (2,7)	4.2 (6,7)	8.2 (13,2)	15.4 (24,8)	29.5 (47,4)
Reverse		4.2 (6,7)	8.2 (13,2)		

*Measured with 26.5-29, 26PR (E-2) tires.

DIFFERENTIAL: Clark limited slip in front axle and No-Spin in rear axle.

DRIVE AXLES: Heavy-duty Clark planetary design with forged steel housing.

PLANETARY DRIVES: Clark low-friction, roller bearing planetary in tractor and scraper wheels.

TIRES

Tubeless, nylon body	26.5-29, 26PR (E-2)
Other tires available:	26.5-25, 26PR (E-2)
	26.5-29, XRB** radial
	26.5-29, R/30 (UE-1L) radial

BRAKES

SERVICE: Four wheel straight air shoe type; diameter and width of 20" x 7" (508 x 177,8 mm) and 1120 sq. in. (7226 cm²).

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

PARKING: Mechanical on front axle input shaft.

ELEVATOR

Length	8' 7"	(2610 mm)
Number of flights	16	
Flight Width	6' 6"	(1981 mm)
Drive	Hydraulic with gear reduction	
Elevator speed	247 FPM	(75,3 m/min)

HYDRAULIC SYSTEM

Fluid capacity125 gals. (473,2 litres)

Closed and pressurized system; oil supplied from sturdy plate steel reservoirs. Hand hole in reservoirs for easy cleaning; magnetic drain plugs. Main and steering systems supplied by tandem pump; elevator system supplied by separate pumps.

All pumps are torque converter mounted and flywheel driven.

MAIN (BOWL & EJECTOR)

Gear-type tandem pump (front section); two spool main valve located in engine compartment.

Pump capacity @ 2100 RPM	33.5 GPM	(126,8 litres/min.)
Relief pressure	2250 PSI	(158,2 kg/cm²)
Bowl cylinders (2, double-acting) .	5.00" dia.	(127,0 mm)
	18.00" stroke	(457,2 mm)
Ejector cylinders (2, double-acting)	5.00" dia.	(127,0 mm)
	18.00" stroke	(457,2 mm)

STEERING

Full hydrostatic power steering with hydraulic follow-up; 90° angle of steer, left and right.

Gear-type tandem pump (rear section); adjustable relief valve in steer valve body.

Pump capacity @ 2100 RPM	33.5 GPM	(126,8 litres/min.)
Relief pressure	2000 PSI	(140,6 kg/cm²)
Steer cylinders (2, double-acting)	5.00" dia.	(127,0 mm)
	18.00" stroke	(457,2 mm)
Width required for 180° turn	31' 6"	(9,6 m)

ELEVATOR

Twin gear-type pumps; individually mounted, one on front and one on rear torque converter.

Pump capacity, front @ 2100 RPM .	39 GPM	(147,6 litres/min.)
Pump capacity, rear @ 2100 RPM .	50.5 GPM	(191,0 litres/min.)
Relief pressure	2250 PSI	(158,2 kg/cm²)

FILTERS: Full-flow 10 micron bypass return filter in each reservoir.

SERVICE CAPACITIES

	U.S. Gal.	(litres)
Cooling system — front & rear (each)	7.0	(26,5)
Crankcase — front & rear (each)	4.5	(17,0)
Torque converter & transmission — F & R (ea.) ...	9.0	(34,1)
Front & rear axle differentials (each)	6.5	(24,6)
Front & rear axle hubs (each)	3.2	(12,1)
Fuel tank — front & rear (each)	77.0	(291,4)
Hydraulic reservoir — front	65.0	(246,0)
Hydraulic reservoir — rear	38.0	(143,8)

BOWL DIMENSIONS

Maximum depth of cut ...8"	(203 mm)
Cutting edge length8' 11"	(2718,0 mm)
*Cutting edge, two sections 1" x 12" x 23 $\frac{3}{8}$ "	(25,4 mm x 304,8 mm x 600,1 mm)
Cutting edge, one section 1" x 17" x 59 $\frac{7}{8}$ "	(25,4 mm x 432 mm x 1521 mm)

*Like sections, interchangeable and reversible.

CAPACITY

Heaped capacity, cu. yds. (m ³)	16 (12, 22)
Rated load, lbs. (kg)	38,400 (17 418)

WEIGHT (Approx.)

Tractor, lbs. (kg)	18,110 (8215)
Scraper, lbs. (kg)	33,952 (15,401)
Total Shipping, lbs. (kg)	52,062 (23 616)

Axle Weights

	EMPTY	LOADED
Front, lbs. (kg)	26,552 (12 044)	39,803 (18 055)
Rear, lbs. (kg)	25,510 (11 572)	50,659 (22 979)
Rated Load, lbs. (kg)	38,400 (17 418)	
Gross Weight, lbs. (kg)	90,462 (41 034)	

STANDARD EQUIPMENT

Reverse Warning Alarm* (SAE J994); ROPS Cab* (SAE J320a); Seat Belt* (SAE J386); Bucket Seat, adjustable; Caps, lockable (fuel, hydraulic, radiator); Cutting Edge Teeth (4); Engine Starter, (front electric-rear air); Fenders, (front & rear); Lights, work (4 front); Pull Hooks; Transmission Guard; Windshield Wiper (front).

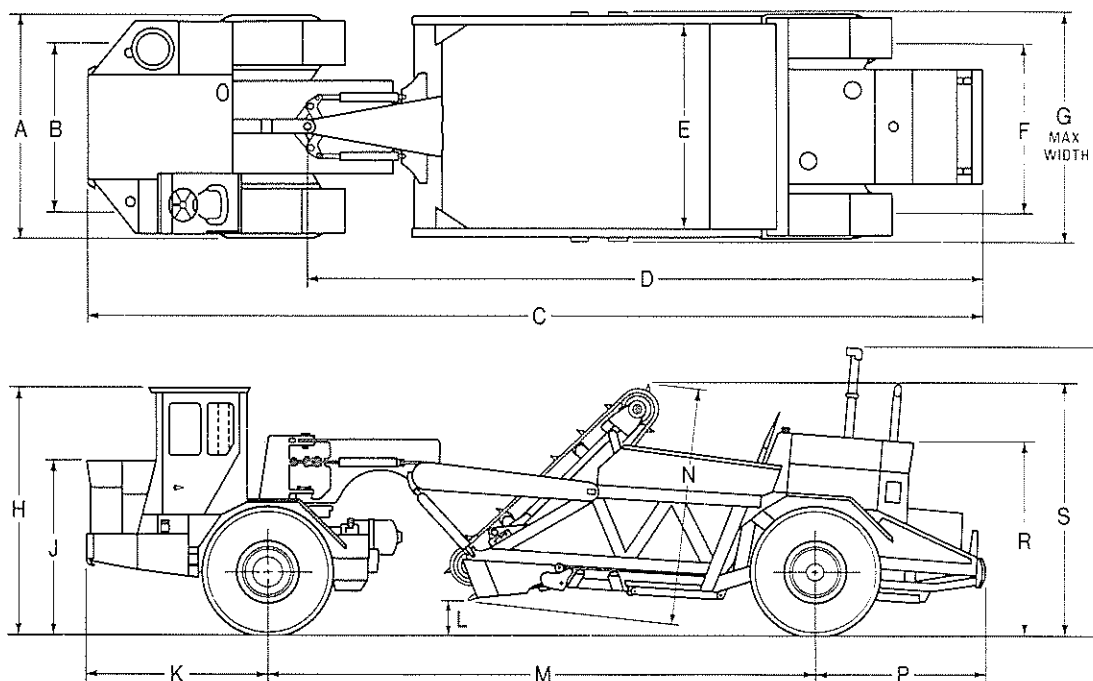
INSTRUMENTS: Engine temperature (2), torque converter temperature (2), engine oil pressure (2), ammeter, air pressure, hourmeter, tachometer (2).

FILTERS: Engine oil, fuel, air (dry-type); hydraulic oil (2 return); torque converter/transmission.

*Optional outside U.S.A. & Canada. NOTE: Units are shipped outside U.S.A. & Canada less ROPS with windshield and wiper as standard equipment.

MODEL 110H-T

SHOWN WITH ROPS
NOT STANDARD
OUTSIDE U.S.A. & CANADA.



MACHINE DIMENSIONS (with 26.5-29 Tires)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T
9' 2"	6' 10"	37' 3"	17' 2.4"	8' 7"	6' 10"	9' 4"	10' 1.4"	7' 2"	8' 1"	1' 5.6"	22' 3"	9' 4.4"	7' 0"	8' 1"	10' 8"	12' 8"
(2794 mm)	(2083 mm)	(11363 mm)	(5243 mm)	(2616 mm)	(2083 mm)	(2844 mm)	(3084 mm)	(2184 mm)	(2464 mm)	(447 mm)	(6792 mm)	(2855 mm)	(2134 mm)	(2464 mm)	(3251 mm)	(3861 mm)

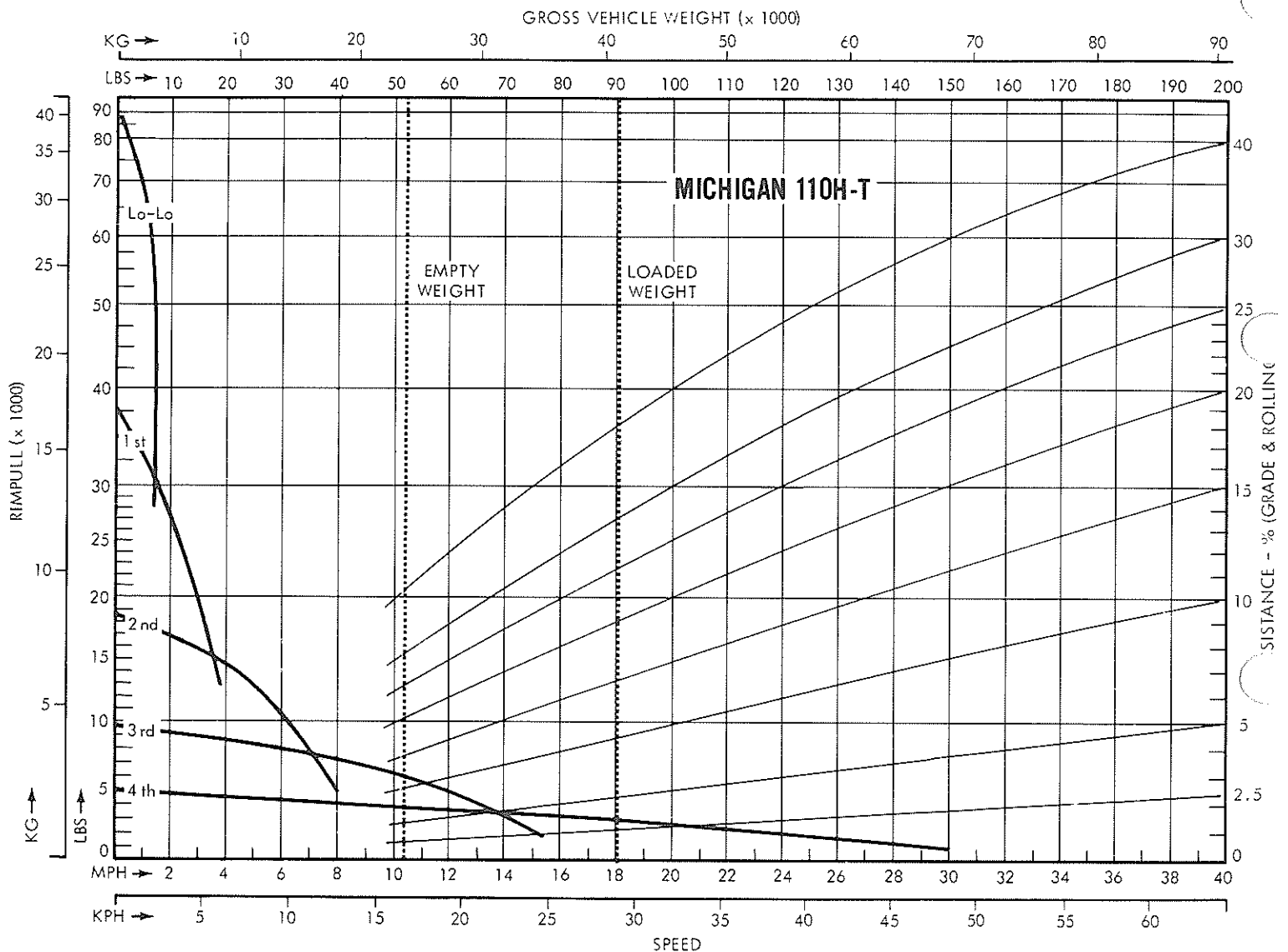
OPTIONAL EQUIPMENT

and approximate installed weights

	Lbs.	(Kg.)		
Acoustical Kit	125	(56,7)	Mirrors, Rearview	10 (4,5)
Air Conditioner	125	(56,7)	Mud Flaps	60 (27,2)
Air System Dryer	40	(18,1)	Quick Start Aid (both engines)	10 (4,5)
*Alternator (30 amp)	5	(2,3)	Rock Guard (rear cowling)	150 (68,0)
Cab Dome Light	1	(0,5)	ROPS, Open (SAE J320a)	400 (181,4)
*Heater, Defroster, Pressurizer Combination	60	(27,2)	Screen (scraper radiator)	5 (2,3)
Loading Light	4	(1,8)	Turn and Stop Lights	10 (4,5)

*Required for air conditioning.

110H-T PERFORMANCE DATA



1. Determine gross scraper weight; locate on top scale.
2. Read down to % total resistance — grade plus rolling resistance.
3. From total resistance/weight intersection point, read horizontally to highest gear curve.
4. From point on gear curve, read vertically to determine maximum speed in that gear.

NOTE: Actual performance depends on traction available and weight on drive wheels.

MATERIALS AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE OR OBLIGATION

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CLARK Construction Machinery Division

Bulletin 110H-T
(8M-BP) 1/76
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