CLARK

275 C
MICHIGAN

ENGINE

Make: Cummins Model: KT 19 C

Max. horsepower hp (kW)**	400 (298) at 2100 rpm
Flywheel horsepower hp (kW)**	360 (268) at 2100 rpm
Net horsepower, PS (kW)*	356 (265) at 2100 rpm
Max. torque, Nm (lbft)**	1830 (1350) at 1500 rpm
Max. torque, Nm (lbft)*	1738 (1281) at 1500 rpm
Bore and stroke, mm (in)	158.8 x 158.8 (6.25 x 6.25)
Number of cylinders	6
Displacement, l (in^3)	18.9 (1150)
Electrical system (alternator)	24 V, 100 A

*DIN 70020 **SAE 816b

DRIVETRAIN

Troque converter: Clark high-efficiency industrial type; single-stage with 3.05: 1 torque multiplication ratio.
Transmission: Clark countershaft type powershift, with directional clutch modulation; four speeds forward, four speeds reverse.
Travel speeds*

1st	2nd	3rd	4th
6.8	11.9	20.1	34.6 km/h
4.2	7.4	12.5	21.5 mph

*Measured with 29.5 - 29 (L-4) tires.

Differentials: 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 280 mm (11.00 in) 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, (L-4) Radial
Other tires available:
29.5 - 29, (L-2, L-3, L-5)* Radial
29.5 - 29, (L-2, L-3, L-4, L-5) Diagonal. 22-28-34 PR.

BRAKES (SAE J1152) (ISO 3450)

Service: Four wheel dry disc type; 541,5 mm (22.5 in) dia. x. 15,88 mm (625 in); two calipers per wheel, hydraulic actuation. Application of left pedal also neutralizes transmission in FORWARD only.
Secondary: System split axle-by-axle; manually actuated by service brake pedal; audible and visible alarms; dead engine braking capability provided by two (2) accumulators pre-charged with nitrogen.
Parking: Dry disc type; 457,2 mm (18.0 in) dia. x 12,7 mm (0.50 in); mounted to front axle input shaft; spring-on, hydraulic-off with dash-mounted hand-valve actuation; transmission interlock applies service brakes to prevent moving machine when parking brake is applied.
Pump: Piston; pressure compensated 207 bar (3000 psi).
Filter: Full flow; 10 micron.

* STANDARD EQUIPMENT

BOOMS: Long or Short.
INSTRUMENTS/GAUGES: Air Cleaner Restriction Indicator. Engine Coollant, level sight glass + Temperature. Engine Oil Pressure. Hourmeter. Hydraulic Fluid Level Sight-Gauge. Torque Converter Oil Temperature. Transmission Fluid Level Sight-Gauge. Voltmeter.
WARNING LIGHTS/AUDIBLE ALARMS: Horn. Parking Brake. Brake Pump Differential Pressure. Brake System, Front Brake System, Rear Reverse Alarm (SAE J994). Suspension seat, with seat belt (SAE J386).
ADDITIONAL STANDARD EQUIPMENT: Alternator (100 A.) Automatic Boom Kickout. Automatic Bucket Positioner. Cab Access Steps and Handrails, left and right sides (SAE J185). Cast Aluminium Boom and Bucket Control Levers, console mounted. Drawbar, with pin. Hood Side Panels. Lifting Lugs. Lights, work (55 W), 2 front, 2 rear. Limited Slip Differentials, front and rear. Neutral Start Feature. Quick Connect Hydraulic Pressure Test Ports. Quick Start, engine. Secondary Brake System. Service Platforms. Transmission Declutch. Transmission Modulation. Vandalism Lock, provision for Batteries, Engine Coolant, Fuel, Hydraulic Oil, Torque Converter/Transmission Oil.

*Standard equipment will vary depending upon regulations and requirements for country of destination.

OPTIONAL EQUIPMENT

CAB, ROPS (SAE J1040) ISO 3471): Acoustical Lining. Air Ducting, built-in. Doors, lockable with self-locking sliding glass windows. Electrical System (24V), circuit-breaker protected, prewired for optional accessories. Environmental Control; heater/defroster and pressurizer with three-speed blower fan. Floor Mats. Hand and Grab Safety Rails. Lights, interior, red and white. Safety Glass, tinted. Walk-in, Walk-out feature. Windshield Washer, front. Wipers, front and rear. Rearview Mirrors, exterior.
Air conditioner. Belly Guard front frame, Grille Guard, Light Guard, Rear Windshield Guard, Belly Guard rear frame. Bucket Teeth (9). Counterweight. Emergency Steering Kit, electric. Fender, front. No-Spin Differential, rear, in lieu of Limited Slip Differential.
ROPS Canopy (SAE J1040) (ISO 3471). Three-Spool Valve, Piping and Controls, Standard Boom only. Secondary Steering Kit (Electric). Warning System A.I.D. High Water Temperature, Low Oil Pressure.

STEERING SYSTEM

Articulated frame; full hydraulic power steering with speed sensor.
Angle of steer: Each direction 35°, total 70°.
Pump: Tandem gear-type design, torque converter mounted; high volume at low engine rpm assures safe, responsive steering. Large section rated 204,7 L/min (54.0 U.S.GPM) @ 2000 RPM engine speed and small section rated 166,8 L/min (44.0 U.S. GPM) @ 2000 rpm engine speed.
Relief Pressure: 193 bar (2800 psi).
Cylinders: Two double-acting with chrome plated piston rods. Bore and stroke – 114,3 x 431,8 mm (4.5 x 17.0 in).

HYDRAULIC SYSTEM

Closed and pressurized power-sensing, demand-type system with a capacity of 617,0 L (163.0 U.S. gal); oil supplied from sturdy plate steel reservoir. Access hole in tank for easy cleaning; in-tank magnet provides extra protection.
Boom controls: Valve has four positions: raise, hold, lower, float. Automatic electric 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 443,4 L/min (117.0 U.S. GPM). Large section rated 238,8 L/min (63.0 U.S. GPM) @ 2000 rpm engine speed and small section rated 204,7 L/min (54.0 U.S. GPM) @ 2000 rpm engine speed.
Valve: Split spool with built-in pressure relief valve; actuated by remote mounted pilot valve. Mounted on front frame for easy access.
Relief pressure: 172 bar (2500 psi).
Cylinders: Two boom and two bucket, all double-acting. Boom, bore & stroke - 228,6 x 1140,5 mm (9.0 x 44.9 in).
Bucket, bore & stroke - 177,8 x 647,7 mm (7.0 x 25.5 in).
Filters: Full-flow 10 micron return filter (with 4 elements), in reservoir.

HYDRAULIC SPEEDS

Raising time (with load)	10.0 s
Dumping time (with load)	2.1 s
Lowering time (empty)	6.0 s
Total cycle	18.1 s

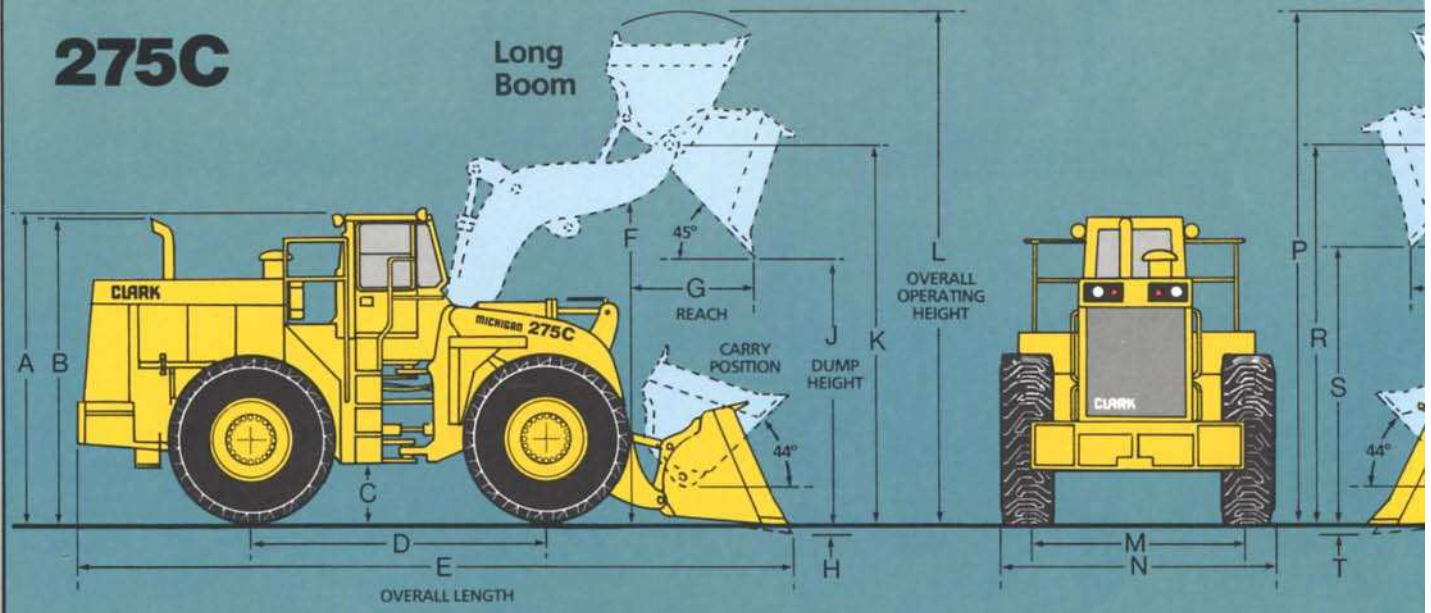
SERVICE CAPACITIES

	Litres	U.S. gal.
Cooling system	98.4	26.0
Crankcase	41.6	11.0
Torque converter & transmission	71.9	19.0
Front & rear axle differentials (each)	60.5	16.0
Front & rear wheel hubs (each)	9.4	2.5
Fuel tank	624.6	165.0
Hydraulic reservoir	514.8	136.0

† Operating Data (with 29.5-29, (L-4) tires)

Data given below which conform to applicable standards recommended by the Society of Automotive Engineers, SAE loader ratings J732 and J742, are d
Changes in standard configuration may change machine dimensions or operating data. Refer to Supplemental Operating Data.

	Long Boom				Short Boom		
Bucket Type	Straight Edge Rock	Spade Nose Rock	General Purpose		Straight Edge Rock	Spade Nose Rock	G P
■ Capacity, Rated (heaped)	5.4 7.0	5.4 7.0	5.7 7.5		5.4 7.0	5.4 7.0	5 7
■ Rated (struck)	4.5 5.9	4.4 5.8	4.7 6.3		4.5 5.9	4.4 5.8	4 6
■ Cutting Edge Width	3607 142.0"	3607 142.0"	3607 142.0"		3607 142.0"	3607 142.0"	3 1
■ Dump Height at Full Lift and 45° Discharge Angle*	3912 12'10"	3785 12'5"	3886 12'9"		3306 10'10"	3221 10'7"	3 1
■ Reach at Full Lift and 45° Discharge Angle*	1664 5'5	1816 5'11.5"	1702 5'7"		1488 4'10"	1664 5"5"	1 5
■ Reach at 2134 mm (7') Height and 45° Discharge Angle*	2616 8'7"	2734 8'11"	2642 8'8"		2059 6'8"	2235 7'3"	2 6
■ Overall Length	10429 33'10"	10617 34'6"	10467 34'00"		9540 31'00"	9728 31'7"	9 3
■ Overall Operating Height*	7136 23'2"	7136 23'2"	6973 22'7"		6294 20'5"	6294 20'5"	6 2
■ Clearance Circle (bucket in carry position)	17.01 55'10"	17.07 56'0"	17.07 56'0"		16.41 53'10"	16.46 54'0"	1 5
■ Breakout Force	250.42 56,292	221.50 49,795	244.60 50,492		235.74 52,987	222.84 50,087	2 5
Effective Digging Force	366.36 82,347	347.24 78,053	362.41 81,470		356.49 81,121	348.10 78,256	3 7
■ Static Tipping Load**, Straight	26,666 58,798	26,630 58,719	26,410 58,234		26,936 59,393	26,839 59,179	2 5
■ Full (35°) Turn	22,886 50,463	22,855 50,395	22,666 49,978		23,002 50,719	22,919 50,536	2 5
■ Operating Weight**, Total	40,304 88,870	40,345 88,960	40,232 88,711		37,244 82,123	37,285 82,213	3 8



Machine Dimensions*

Tire Size	A	B	C	D	E▲	F	G▲	H	J△	K	L	M	N	P	R	S△	T
29.5-29 (L-2)	3907 12'10"	3813 12'6"	567 1'10"	3708 12'2"	†	4051 13'3.5"	†	152.4 6'0"	†	5118 16'9.5"	†	2680 8'9.5"	3505 11'6"	†	4508 14'9.5"	†	1 4
29.5-29 (L-3)	3920 12'10"	3850 12'7"	580 1'11"	3708 12'2"	†	4064 13'4"	†	139.7 5.5"	†	5131 16'10"	†	2680 8'9.5"	3505 11'6"	†	4521 14'10"	†	8 3
29.5-29 (L-4)	3945 12'11"	3875 12'8"	605 2'0"	3708 12'2"	†	4089 13'5"	†	114.3 4.5"	†	5156 16'11"	†	2680 8'9.5"	3505 11'6"	†	4547 15'11"	†	6 2
29.5-29 (L-5)	3971 13'0"	3901 12'10"	631 2'1"	3708 12'2"	†	4115 13'6"	†	88.9 3.5"	†	5182 17'0"	†	2680 8'9.5"	3505 11'6"	†	4572 15'0"	†	3 1

† See Operating Data. △Deduct 178 mm (7.0 in) for bucket teeth ▲Add 178 mm (7.0 in) for buckett teeth.

noted in the text by ■.

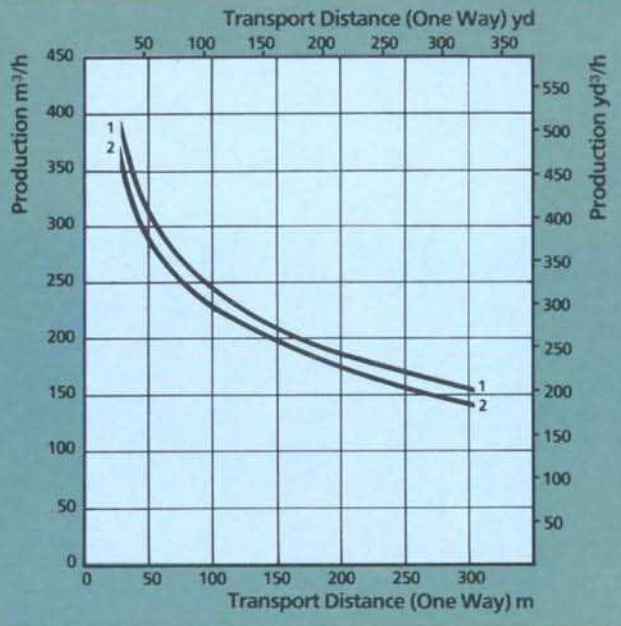
neral rpose	Light Material	
	6.1 8.0	m^3 yd^3
	5.1 6.7	m^3 yd^3
07 2.0"	3543 139.5"	mm in
79 '9"	3175 10'5"	mm ft.in.
14 "	1499 4'11"	mm ft.in.
85 "	2057 6'8"	mm ft.in.
78 1"	9654 31'2"	mm ft.in.
64 '8"	6160 20'0"	mm ft.in.
.46 '0"	16.36 53'8"	m ft.in.
3.07 ,380	230.40 51,795	kN lbf
4.73 ,739	352.98 79,335	kN lbf
,626 ,710	27,192 59,958	kg lb
,737 ,135	23,221 51,262	kg lb
,172 ,964	36,606 80,716	kg lb

	U▲	V	
1.6 "	†	3823 12'6.5"	mm ft.in.
.9 "	†	3835 12'7"	mm ft.in
.5 "	†	3861 12'8"	mmm ft.in.
.1 "	†	3886 12'9"	mm ft.in.

Production

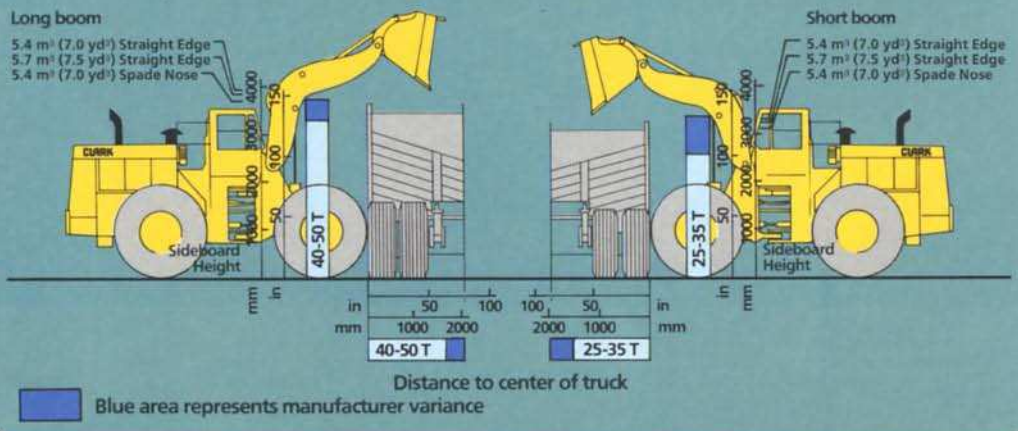
Buckets
1 : 5.7 m³, 7.5 yd³
2 : 5.4 m³, 7.0 yd³

Production based on:
Loading shot rock
60 minute hour
100% bucket fill factor
0% grade
4% rolling resistance



Boom/Truck Reference Chart

Check operating data for exact dimensions when making final selection.



Blue area represents manufacturer variance

Supplemental Operating Data

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

	29.5-29, 22PR (L-2)	29.5-29, 22PR (L-3)	29.5-29, 22PR (L-5)
Vertical, mm (in)	– 38 (– 1.5)	– 25.4 (– 1.0)	+ 25.4 (+ 1.0)
Horizontal, mm (in)	+ 7.6 (+ 0.3)	+ 19 (+ 0.75)	– 19 (– 0.75)

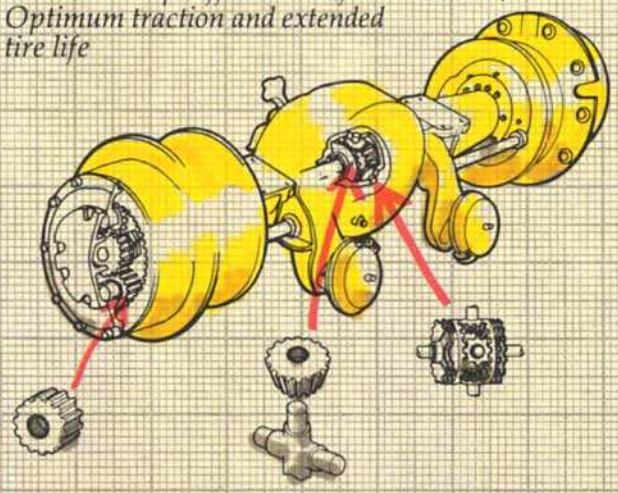
***Operating Weight:** is approximate and includes bucket shown plus ROPS cab and 2542 kg (5605 lbs) supplementary counterweight for long boom. A change in tire size or the addition (or removal) of optional equipment, attachments or counterweighting will affect both operating weight and tipping loards. Rear tire hydroinflation is not recommended.

ITEM	Change in Operating Weight lb	kg	Change in Full Turn Static Tipping Load Long Boom lb	kg	Short Boom lb	kg
29.5-29, 22PR (L-2)	– 2440	– 1107	– 1269	– 576	– 1574	– 714
29.5-29, 22PR (L-3)	– 1632	– 740	– 849	– 385	– 1052	– 477
29.5-29, 22PR (L-5)	1664	755	866	392	1070	485
29.5-29, *Radial	– 2232	– 1012	– 1159	– 526	– 1440	– 653
29.5-29, *Radial	– 760	– 345	– 395	– 179	– 490	– 222
ROPS Canopy (in lieu of ROPS cab)	– 630	– 286	– 380	– 172	– 480	– 218

CLARK POWERTRAIN

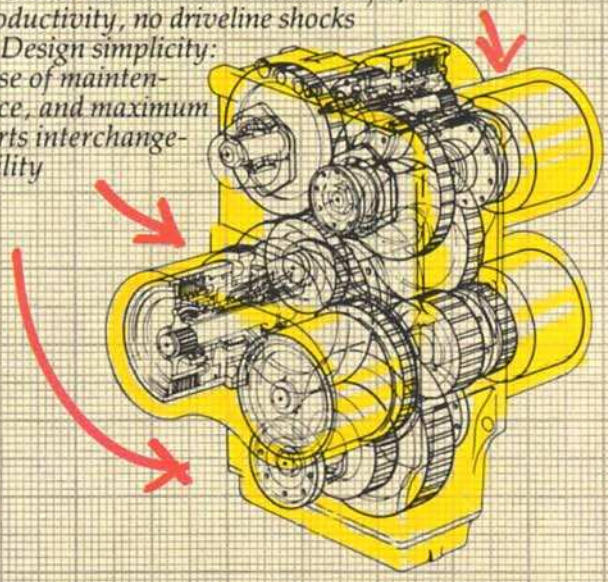
AXLES – Rugged, Proven, Reliable

- *Single-piece cast-steel housing: Maximum strength*
- *Needle-roller bearings: Minimum friction and wear*
- *Limited slip differentials (front and rear): Optimum traction and extended tire life*

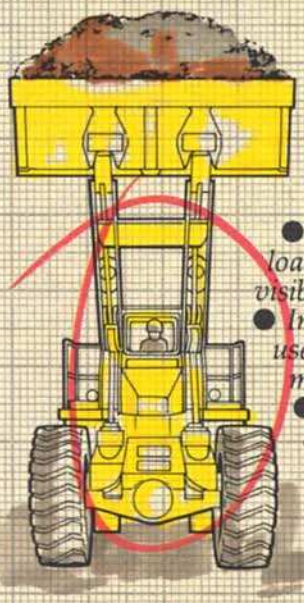


TRANSMISSION – Smooth, Simple, Dependable

- *Clutch modulation: Smooth shifts, increased productivity, no driveline shocks*
- *Design simplicity: Ease of maintenance, and maximum parts interchangeability*

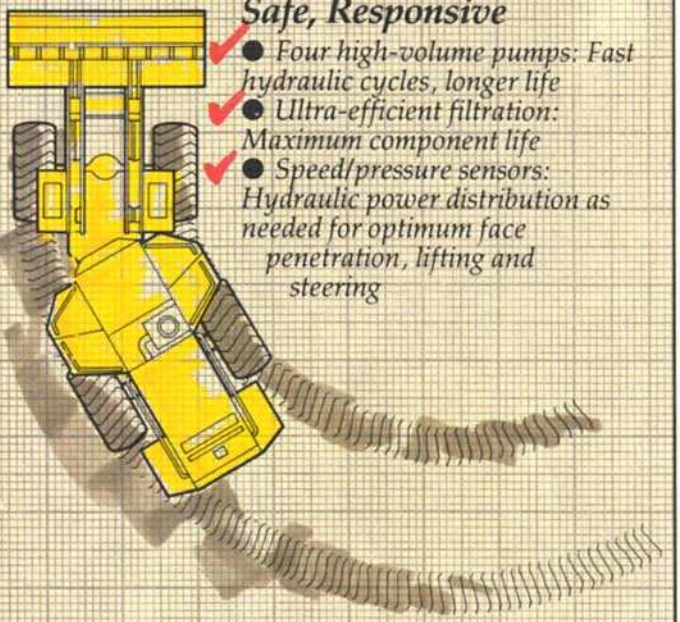


BOOM – Strong, Solid, Durable



- *Rugged double-plate construction: Maximum rigidity and protection of components*
- *Crosstube location: Even load distribution and optimum visibility*
- *In-line linkage: Optimum use of hydraulic forces, minimum torsion on boom*
- *Trunnion-mounted cylinders: Maximum speed and lifting capacity to full height, minimum piston rod flexing*

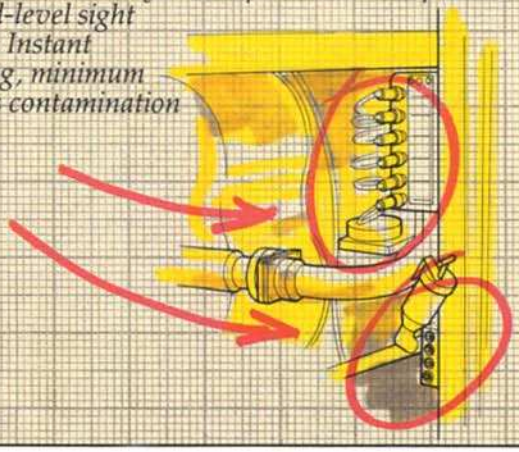
HYDRAULICS – Cycle-sensitive, Safe, Responsive



- *Four high-volume pumps: Fast hydraulic cycles, longer life*
- *Ultra-efficient filtration: Maximum component life*
- *Speed/pressure sensors: Hydraulic power distribution as needed for optimum face penetration, lifting and steering*

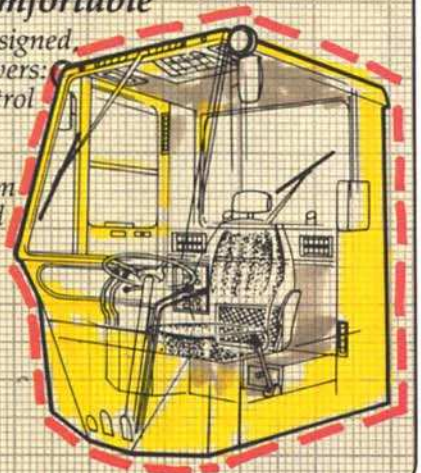
MAINTENANCE – Quick, Easy, Convenient

- *Centralized grease fittings: Convenient service of difficult lubrication points*
- *Quick-connect hydraulic pressure check ports*
- *Fluid-level sight gauges: Instant checking, minimum systems contamination*



OPERATOR COMPARTMENT – Quiet, Safe, Comfortable

- *Ergonomically-designed, low-effort control levers: Precise machine control without fatigue*
- *Sound-insulated ROPS cab: Maximum operator comfort and safety*
- *Color-coded instrumentation: Convenient, positive monitoring*



CLARK

Clark Michigan Company Quality Assurance Policy

The policy of the Clark Michigan Company is to achieve and maintain a reputation for leadership in the quality of its products and product services.

The objective of Clark Michigan Company is to produce and market construction machinery equipment and supporting services that equal or exceed its competitors' quality, and satisfy customer needs and expectations. Clark Michigan Company will also assure that all materials, parts, assemblies or sub-assemblies supplied by other Clark divisions or by outside vendors meet the set forth quality requirements.

The Clark Michigan Company is structured to develop, implement and monitor a quality assurance system covering engineering, testing, manufacturing and services to assure a quality product, supported by skilled trained personnel and high parts availability.

The quality assurance system is constantly reviewed, revised and reissued to assure that Clark Michigan Company and its dealer network continue to provide the highest standards of quality.

CLARK Construction Machinery Group

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