CLARK

55C
MICHIGAN

ENGINE

Make : Cummins Model : V-378C

Max. horsepower HP (KW)**	137(102) at 2600rpm
Flywheel horsepower HP (KW)**	123(92) at 2600rpm
Net horsepower KW (PS)*	86(118) at 2600rpm
Max. torque Nm (lbft)**	380(280) at 1900rpm
Max. torque Nm (lbft)*	365(269) at 1900rpm
Bore & stroke mm (in)	117.6x95.3 (4.63x3.75)
Number of cylinders	6
Displacement L (in³)	6.20(378)
Electrical system (alternator)	12V, 70A

*DIN 70 020 **SAE 816 b

DRIVETRAIN

Torque converter: Clark high-efficiency industrial type; single-stage with 2.6 to 1 multiplication factor.
Transmission: Clark countershaft type powershift with modulating clutch; three speeds forward, three speeds reverse.
Travel speeds*

1st	2nd	3rd
5.7	10.9	27.7 km/h
3.5	6.75	17.20 mph

*Measured with 17.5 - 25 tires.

Differential: Clark torque proportioning front and rear.
Axles: Heavy-duty Clark planetary design with single-piece cast steel housing; all wheel drive. Front axle fixed; cradle-mounted rear axle oscillates a total of 18°. Total vertical wheel travel of 267mm (10.5in) 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

Tires available (tubeless):

17.5 - 25	L2 - L3	Radial One Star & Diagonal 12PR
20 - 24	L2 - L3	Radial One Star & Diagonal 12 - 14PR
22 - 25	L2	Radial One Star & Diagonal 12PR

BRAKES (SAE J1152) (ISO 3450)

Service: Four wheel, hydraulic disc type.
Parking and Emergency: Mechanical disc on transmission output shaft; lever actuated.

STEERING SYSTEM

Articulated frame; full hydraulic power steering.
Angle of Steer: Each direction 35°; total 70°.
Pump: Gear-type design, torque converter mounted. Total pump output is 100 l/min (26.4 U.S. gpm) at 2600 rpm. Flow control valve maintains constant 43.6 l/min (11.5 U.S. gpm) flow above 1200 rpm.
Relief Pressure: 110 bar (1595 psi).
Cylinders: Two; double-acting with chrome-plated piston rods. Bore and stroke: 63.5 x 356 mm (2.5 x 13.75 in).

HYDRAULIC SYSTEM

Closed and pressurized with a capacity of 162 l (49 U.S. gal.); oil supplied from sturdy plate steel reservoir with level sight gauges. In-tank magnet provides extra protection.
Boom controls: Valve has four positions: raise, hold, lower, float.
Bucket controls: Valve has three positions: rollback, hold, dump.
Pump: Gear-type design, torque converter mounted. Total pump output is 157.2 l/min (41.6 U.S. gpm) at 2600 rpm.
Relief Pressure: 165.5 bar (2400 psi).
Valve: Two-spool with built-in pressure relief valve. Mounted in front frame for easy access.
Cylinders: Two boom and two bucket; all double-acting with chrome-plated piston rods.
Boom, bore and stroke: 127.0 x 691.0 mm (5.0 x 27.2 in)
Bucket, bore and stroke: 101.6 x 655.0 mm (4.0 x 25.5 in)
Filter: Full-flow 10 micron (return); located in hydraulic reservoir.

HYDRAULIC SPEEDS

	Sec.
Raising time (with load)	6.5
Dumping time (with load)	2.0
Lowering time (empty)	3.5
Total cycle	12.0

SERVICE CAPACITIES

	Litres	U.S. gal.
Cooling system	36.0	9.5
Crankcase	14.0	3.7
Torque converter & transmission	18.9	5.0
Front & rear axle differentials (each)	11.0	2.9
Front & rear wheel hubs (each)	4.5	1.2
Fuel tank	151.0	40.0
Hydraulic reservoir	120.0	32.0

*STANDARD EQUIPMENT

ROPS/FOPS Cab (ISO 3164/3471), with acoustical treatment and two side-mirrors. Suspension seat, with seat belt (SAE J 386). Front and rear wipers. Windshield washer. Heater/defroster. Integral sound suppression. Front and rear working lights. Two tail/stop lights. Sealed batteries. Handrails. Front and rear fenders. Boom kickout, adjustable. Bucket positioner. Tool Kit. Quick-connect hydraulic pressure test ports. Lockable caps: fuel, hydraulic, and radiator. Gauges: Engine oil pressure; Water temperature; Torque converter temperature; Voltmeter; Hourmeter; Warning lights for brake/steer pressure and accumulator pressure. Filters: Air (dry-type); Engine oil; Fuel; Hydraulic oil (return), torque converter/transmission. Turn signals.

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

OPTIONAL EQUIPMENT

Air conditioner. Attachment bracket, with quick-change coupling. Bucket, multi-task (1.15m³). Bucket teeth (bolt on). Counterweight (in lieu of hydroinflation). Engine block heater. Fork attachment. Fuel gauge. No-spin differential, front. Rotating beacon. Seat, de luxe suspension, with heating and seat belt. Spillguard kit. Three-spool valve and piping.

CLARK MICHIGAN 55C

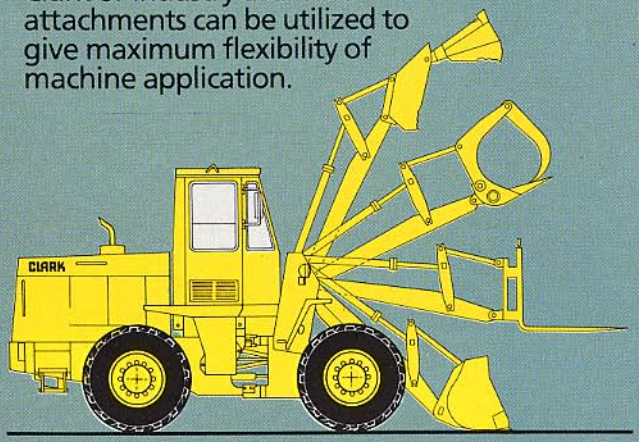
Engineered and Tested for Reliability
Designed for Serviceability
Built for Performance

Boom and Bucket Sealed Pins

Fully-sealed pins on boom and bucket provide extended service intervals. This design feature keeps the lubrication in – and dirt out.

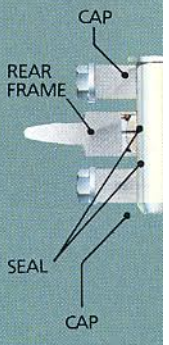
Versatility

With the addition of the optional quick-coupling attachment a wide range of Clark or industry available attachments can be utilized to give maximum flexibility of machine application.



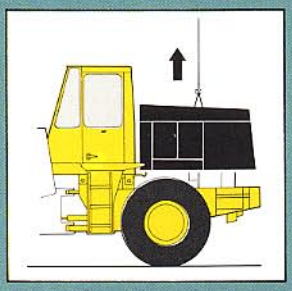
Adjustable Hinge Pins

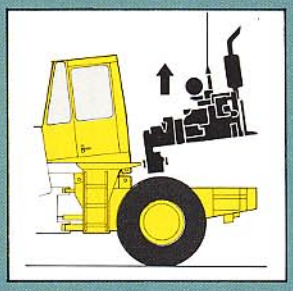
Both upper and lower hinge assemblies feature heavy-duty, solid steel pins and spherical bushings to absorb both horizontal forces and vertical thrust loads. Lower split bushing is shim-loaded, factory preset and easily adjustable; the pin is sealed for extra protection from dirt ensuring increased service life.

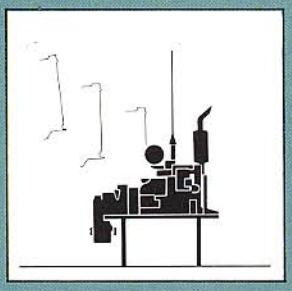


UP

The Clark Power Module





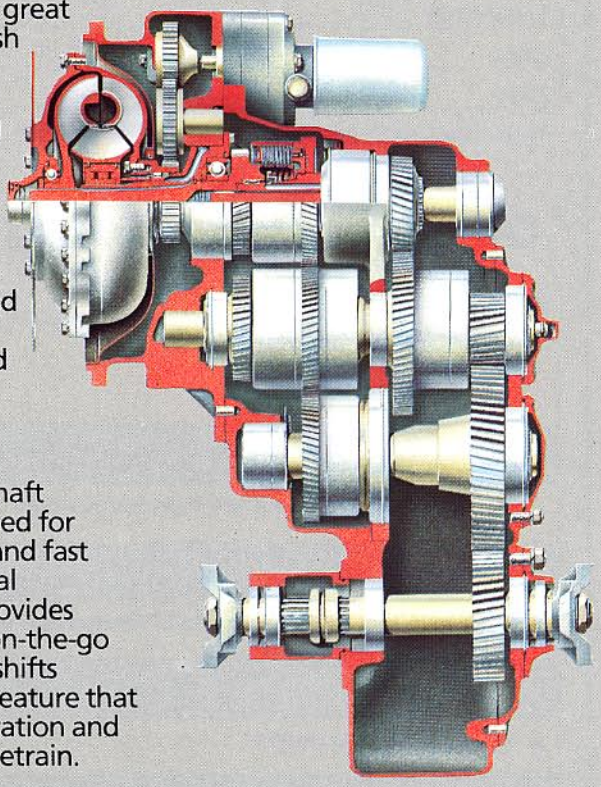


The power module, including the engine, torque converter and transmission, is assembled as an integral unit. If major service should ever become necessary, the complete module may be removed as a unit providing convenient service accessibility.

The Clark Integrated Drive Train

Automatically Matches Engine Power to Job Conditions

The Clark Michigan 55C four-wheel drive loader offers great versatility in a wide range of applications. To accomplish this kind of work flexibility, a dependable drivetrain is essential. And this is what Clark has been designing and manufacturing for over 65 years. Backed by a program of continuous development, the Clark drivetrain is durable and dependable . . . and it has been proved in many applications throughout the world over many years.



Modulated Transmission

The rugged countershaft transmission is designed for tough jobs that demand fast cycle times. Directional clutch modulation provides smooth, full power, on-the-go forward and reverse shifts without braking – a feature that provides ease of operation and helps protect the drivetrain.

Torque Converter

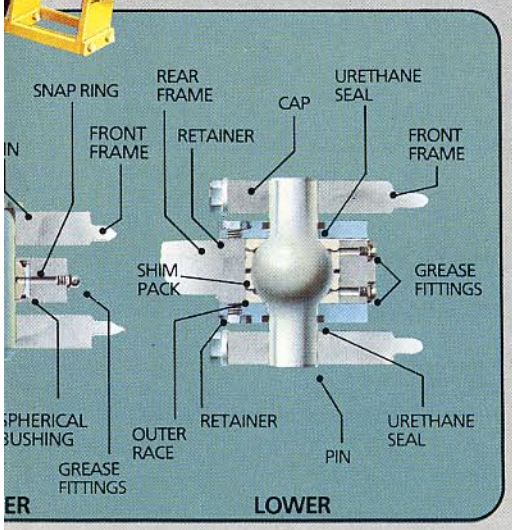
The torque converter, integral with the transmission, is a high-efficiency industrial type single-phase design with a 2.6 to 1 torque multiplication ratio. All hydraulic pumps are torque converter mounted for easy accessibility.

Differential

The Clark torque proportioning differential is standard in both axles, provides good tractive effort, minimizes wheel spin and retains good turning characteristics with minimum tire scuffing and wear.

Planetary Axles

Both front and rear drive axles have single-piece cast steel housings for maximum strength and durability. The planetaries at each wheel feature low friction needle roller bearings for greater efficiency and longer life.



† Machine Dimensions*

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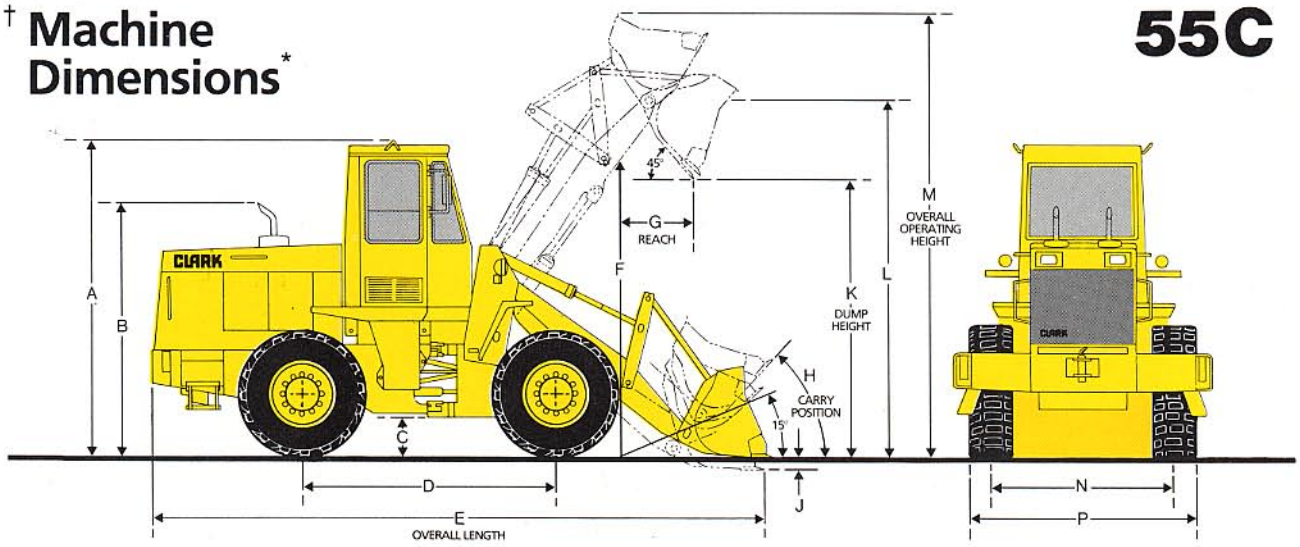

Tires	A	B	C	D	E	F	G	H	J	K	L	M	N	P	
17.5-25 (L-2)	3070 10′1″	2410 7′11″	375 1′3″	2740 9′0″	**	3040 9′11.5″	**	50°	100 4″	**	3655 12′0″	**	1820 5′11.5″	2255 7′4.75″	mm ft. in.
20-24	3080 10′1.25″	2420 7′11.5″	385 1′3.5″	2740 9′0″	**	3050 10′0″	**	50°	90 3.5″	**	3665 12′0.25″	**	1871 6′1.75″	2433 7′11.75″	mm ft. in.
22-25	3060 10′0.5″	2400 7′10.5″	365 1′2.5″	2740 9′0″	**	3030 9′11.25″	**	50°	110 4.25″	**	3645 12′0″	**	1820 5′11.5″	2431 7′11.75″	mm ft. in.

*Per SAE J 732 and J 742. **See Operating Data.

† Operating Data (with 17.5-25 tires)

Data given below which conform to applicable standards recommended by the Society of Automotive Engineers, SAE loader ratings J 732 and J 742, are denoted in the text by ▲

Bucket Type	General Purpose	General Purpose	Material Handling	Light Material	
▲ Capacity, Rated (heaped)	1.50 2.00	1.70 2.25	1.90 2.50	2.30 3.00	m^3 yd^3
Rated (struck)	1.30 1.70	1.50 1.95	1.65 2.15	1.95 2.60	m^3 yd^3
▲ Cutting Edge Width	2500 8′2.5″	2500 8′2.5″	2500 8′2.5″	2858 9′4.5″	mm ft. in.
▲ Dump Height at Full Lift and 45° Discharge Angle*	2813 9′3″	2757 9′0.5″	2717 8′11″	2674 8′9″	mm ft. in
▲ Reach at Full Lift and 45° Discharge Angle*	919 3′0″	975 3′2.5″	1015 3′4″	1058 3′5.5″	mm ft. in.
▲ Reach at 2134mm (7′) Height and 45° Discharge Angle*	1404 4′7.25″	1460 4′9.5″	1500 4′11″	1543 5′1″	mm ft. in.
▲ Overall Length	6654 21′10″	6733 22′1″	6790 22′3″	6851 22′6″	mm ft. in.
▲ Overall Operating Height*	4734 15′6″	4813 15′9.5″	4870 15′1″	4931 16′2″	mm ft. in.
▲ Clearance Circle (bucket in carry position)	11.7 38′5″	11.8 38′9″	12.1 39′9″	12.2 40′1″	m ft. in.
▲ Breakout Force	81.45 18,310	74.97 16,853	70.90 15,938	67.01 15,064	kN lbf
Effective Digging Force	105.66 23,753	100.75 22,649	97.70 21,963	94.98 21,352	kN lbf
▲ Static Tipping Load**, Straight	7737 17,060	7634 16,832	7537 16,619	7384 16,281	kg lb
Full (35°) Turn	6999 15,432	6905 15,225	6819 15,035	6680 14,729	kg lb
▲ Operating Weight**, Total	10,754 23,712	10,787 23,785	10,850 23,924	10,877 23,983	kg lb

*Dimensions change with tires other than 17.5-25; add (or subtract) as applicable:

	20-24	22-25
Vertical, mm (in)	−10 (−0.4)	−10 (−0.4)
Horizontal, mm (in)	+17 (+0.7)	+12 (+0.5)

**Approximate; based on bucket shown, ROPS cab, and rear tire hydroinflation. A change in tire size, addition (or removal) of optional equipment and attachments, counterweighting, or rear tire hydroinflation will affect both operating weight and tipping loads.

†Changes in standard configuration may change machine dimensions or operating data.

Clark Quality Assurance Policy

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

The objective of Clark 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 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 Construction Machinery Group 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 and its dealer network continue to provide the highest standards of quality.

CLARK Construction Machinery Group

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