



Michigan L320



- *Engine output gross:
SAE J1349 337 kW
(452 hp)*
- *Operating weight:
45,8 t
(100,940 lb)*
- *Buckets:
5,7 - 11,5 m³
(7.5 - 15.0 yd³)*
- *Standard and Long Booms*
- *Direct-injected, turbocharged,
aftercooled, Cummins diesel*
- *Powershift transmission with
single lever control*
- *Enclosed multi-disc, oil cooled,
wet disc brakes*
- *Limited slip differentials, front
and rear*
- *Full hydraulic, flow amplified,
steering for low effort and
ease of control*
- *Deluxe cab with great comfort,
safety, and high visibility*
- *Monitoring system for brakes
and other functions*
- *Pilot-operated, seat-mounted,
fingertip hydraulic controls*

MICHIGAN



ENGINE

Direct-injected, turbocharged and aftercooled 6 cylinder, in-line, 4-cycle diesel.

Make	Cummins			
Model	KTA 19C			
Max. rating* at	rps	rpm	35	2100
SAE J1349 (ISO 1585)	kW	hp	337	452
Flywheel rating** at	rps	rpm	35	2100
SAE J1349 (ISO 1585)	kW	hp	311	417
DIN 70020 / 6271	kW	hp	311	417
Max. torque at	rps	rpm	25	1500
SAE J1349 (ISO 1585)	N•m	lbf ft	2165	1597
DIN 70020 / 6271	N•m	lbf ft	2165	1597
No. of cylinders	6			
Displacement, total	l	in³	18,8	1150
Bore	mm	in	158,8	6.25
Stroke	mm	in	158,8	6.25

Air Cleaner

1. Cyclone precleaner with automatic dust ejector.
2. Paper filter with restriction indicator.
3. Replaceable safety filter.

***Max. rating** - Rating of engine equipped only with components essential for engine function, such as injection pump, oil pump and water pump.

****Flywheel rating** - Net rating measured with fan, intake and exhaust system, cooling system, and alternator mounted.



ELECTRICAL SYSTEM

The electrical system is well protected by circuit breakers and prewired for optional equipment.

Voltage	V	24
Alternator	A	100
Batteries (12 volt)		4
Battery capacity, total	CCA	1250
Cranking capacity, each	CCA	625



SERVICE REFILL CAPACITIES

Crankcase	l	US gal	51,1	13.5
Fuel tank (total)	l	US gal	803	212.0
Fuel tank (usable)	l	US gal	791	209.0
Cooling system	l	US gal	132,5	35.0
Transmission (total)	l	US gal	68,1	18.0
Wheel hubs, each	l	US gal	9,8	2.6
Differentials, each	l	US gal	68,1	18.0
Midmount bearing	l	US gal	5,3	1.4
Hydraulic system (total)	l	US gal	606	160.0
Hydraulic tank	l	US gal	345	91.0



DRIVETRAIN

Torque converter: Clark, high efficiency, single stage, single phase.

Transmission: Clark, countershaft-type powershift transmission with directional clutch modulation.

Axles: Clark, full-floating axle shafts with planetary-type hub reductions. Single piece cast axle housings. Fixed front axle and oscillating rear axle.

Differentials: Clark, limited slip differentials in front and rear axles.

Hub reduction: Clark, planetary drive with low-friction roller bearings in each wheel hub.

Tires: Tubeless with nylon cord body. Alternative tires available for specific applications.

Torque converter make, model	Clark, C 8612-76			
Torque multiplication	2.536:1			
Transmission make, model	Clark, 6421-11			
Running speeds				
1, forward/reverse	km/h	mph	7,1	4.4
2, forward/reverse	km/h	mph	12,4	7.7
3, forward/reverse	km/h	mph	20,9	13.0
4, forward	km/h	mph	35,4	22.1
Measurement with tires	35/65-33 (30PR) L-4			
Front axle make, model	Clark, 21D5073			
Rear axle make, model	Clark, 21D5073			
Rear axle oscillation, total			24°	
	mm	in	559	22



BRAKE SYSTEM

The brake system meets requirements according to SAE J1152, ISO 3450.

Service brakes: Full hydraulic system with outboard mounted, oil-cooled, wet disc brakes at each wheel.

Both pedals apply brakes and shift transmission into neutral. A separate dash-mounted switch allows the operator to deactivate this declutch feature.

Secondary: Dual circuit axle-by-axle system. Actuated by service brake pedals. Audible and visual low pressure alarm. Dead engine braking capability provided by two nitrogen-charged accumulators.

Parking brake: Dry disc type mounted on front axle input shaft. Spring applied, hydraulically released; actuated by dash-mounted switch.

Transmission interlock applies service brakes if shifted into forward or reverse to prevent moving machine when parking brake is applied.

Pump: Piston pump, pressure compensated.

Filtration: Full flow, 10 micron filter.

Pressure setting	MPa	psi	20,7	3000
Service brake, disc dia.	mm	in	453	17.82
Parking brake, disc dia.	mm	in	457	18
thickness	mm	in	12,7	0.5



STEERING SYSTEM

Steering system meets requirements according to SAE J1511, ISO 5010.

Articulated frame: Full hydraulic steering system with speed sensor hydraulics.

Pump: One gear-type, mounted on the torque converter.

Supply system: The system is served by a steer pump and a separate switch pump which is speed and pressure sensitive and feeds either the steering system or the main hydraulic system.

Cylinders: Two double-acting cushioned cylinders.

Steering cylinders, no.			2	
Bore	mm	in	127	5.0
Stroke	mm	in	497	19.56
Relief pressure	MPa	psi	19,7	2850
Steer pump				
output	l/min	US gal/min	250	66
at pressure	MPa	psi	6,9	1000
and engine speed	rps	rpm	35	2100
Secondary pump				
output	l/min	US gal/min	148	39
at pressure	MPa	psi	6,9	1000
and engine speed	rps	rpm	25	1500
Articulation			35°	



CAB

Cab: (non-ROPS) with two lockable doors. Sound-insulating lining. Sliding self-locking windows. Tinted safety glass in all windows.

Canopy: ROPS/FOPS (SAE J1040, ISO 3471).

Heater/Defroster/Air Conditioner: (SAE J231, ISO 3449). Provides filtered (10 micron) fresh air and has a three-speed fan and a defroster for the front and side windows.

Heater	kW	Btu/h	12,3	42,000
Air Conditioner	kW	Btu/h	6,3	21,000

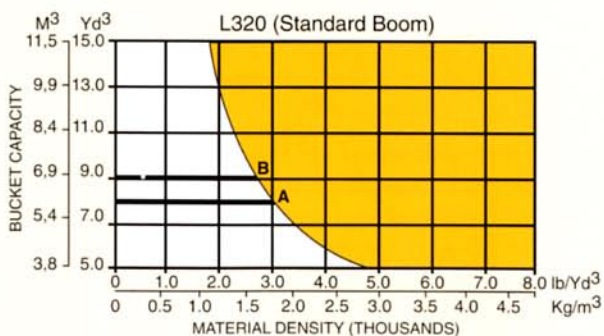
Operator's seat: Fully adjustable air suspension seat with seat belt (SAE J386).

Sound level in closed cab, max	ISO 6394	dB(A) 77
	SAE J919	dB(A) 82.3
	EEC 86/662	dB(A) 79.6



BUCKETS (Standard Boom)

A - Straight edge rock	m³	yd³	6,1	8.0
A - Spade-nose rock	m³	yd³	6,1	8.0
B - Material handling	m³	yd³	6,9	9.0



HYDRAULIC SYSTEM

Closed and pressurized pressure-sensing system with a sturdy plate-steel tank. Hydraulic oil is fully filtered and cooled. An access hole is provided in the tank for easy cleaning. An in-tank magnet provides extra protection.

Pump: Three gear-type pumps, mounted on torque converter.

Supply system: The system is served by two main pumps and a speed and pressure sensitive switch pump that feeds either the main hydraulic system or the steering system.

Valve: Split-spool valve with built-in pressure relief valve. Actuated by a pilot valve, it is mounted on front frame for easy access.

Lift function: The valve has four positions: raise, hold, lower and float. An automatic kickout detent is adjustable for any position between maximum reach and full lift height.

Tilt function: The valve has three positions: rollback, hold and dump. Automatic bucket positioner is adjustable to any desired loading angle.

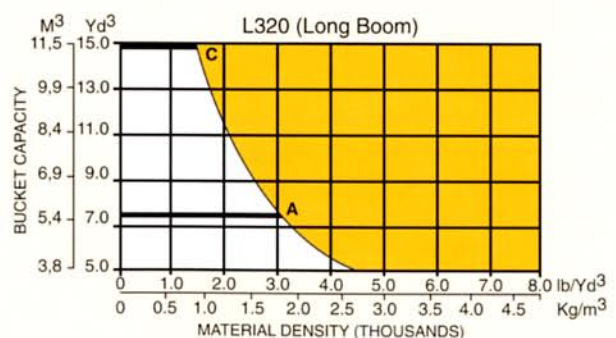
Cylinders: Double-acting.

Filters: Full-flow 10 micron return filter (with two elements), located in hydraulic oil tank.

Relief pressure	MPa	psi	20	2900
Main pump output	l/min	US gal/min	734	194
at pressure	MPa	psi	6,9	1000
and engine speed	rps	rpm	35	2100
Lift cylinders, no			2	
Bore	mm	in	229	9.0
Stroke	mm	in	1168	46.0
Tilt cylinders, no			2	
Bore	mm	in	191	7.5
Stroke	mm	in	808	31.8
Raising time (loaded)	s		9.0	
Dumping time (loaded)	s		2.1	
Lowering time (empty)	s		5.4	
Total cycle time	s		16.5	

BUCKETS (Long Boom)

A - Straight edge rock	m³	yd³	5,7	7.5
A - Spade-nose rock	m³	yd³	5,7	7.5
C - Light materials	m³	yd³	11,5	15.0



OPERATIONAL DATA - MICHIGAN L320 (Standard Boom)

Tires: 35/65-33 (30PR) L-4

BUCKET TYPE		Straight Edge Rock	Spade-Nose Rock	Material Handling
Volume, heaped	m ³	6,1	6,1	6,9
	yd ³	8.0	8.0	9.0
struck	m ³	5,1	5,3	6,0
	yd ³	6.63	6.89	7.88
Bucket weight	kg	4 096	4 581	4 173
	lb	9,030	10,100	9,200
Static tipping load, straight	kg	30 759	30 273	29 710
	lb	67,812	66,742	65,499
full turn	kg	27 409	26 923	26 418
	lb	60,426	59,356	58,240
Breakout force	kN	452,1	336	413,5
	lbf	101,600	86,737	92,960
A	mm	10 452 $\triangle$	10 706 $\triangle$	10 592
	ft in	34'3.5"	35'1.5"	34'9"
H	mm	3 785 $\ominus$	3 632 $\ominus$	3 696
	ft in	12'5"	11'11"	12'1.5"
K	mm	5 055	5 055	5 055
	ft in	16'7"	16'7"	16'7"
L	mm	7 137	7 137	6 909
	ft in	23'5"	23'5"	22'8"
M	mm	1 689 $\oplus$	1 880 $\oplus$	1 778
	ft in	5'6.5"	6'2"	5'10"
N	mm	2 476 $\oplus$	2 616 $\oplus$	2 540
	ft in	8'1.5"	8'7"	8'4"
T	mm	81 $\otimes$	81 $\otimes$	91
	ft in	3.2"	3.2"	3.6"
V	mm	3 962	3 962	3 962
	ft in	13'0"	13'0"	13'0"
a ₁ Clearance circle (over bucket in carry position)	mm	18 009	18 034	18 009
	ft in	59'1"	59'2"	59'1"
Operating weight	kg	45 018	45 490	45 210
	lb	99,220	100,290	95,670

* Bolt-on Cutting Edge adds 0.3 m³ (0.4 yd³) to heaped capacity.

Add 651 mm (2.56 in) bolt-on cutting edge

Deduct 460 mm (1.81 in) bolt-on cutting edge

Add 460 mm (1.81 in) bolt-on cutting edge

$\triangle$ Add 322 mm (12.7 in) for bucket teeth

$\ominus$ Deduct 234 mm (9.2 in) for bucket teeth

$\oplus$ Add 361 mm (14.2 in) for bucket teeth

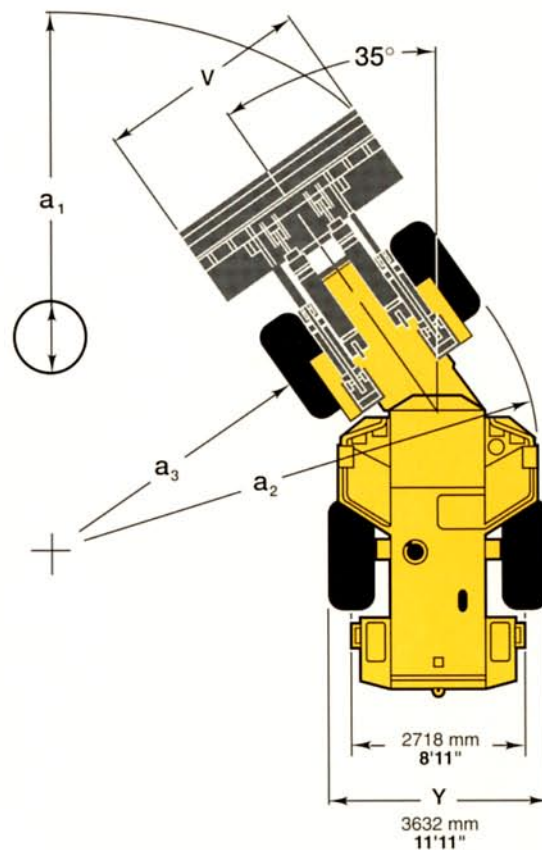
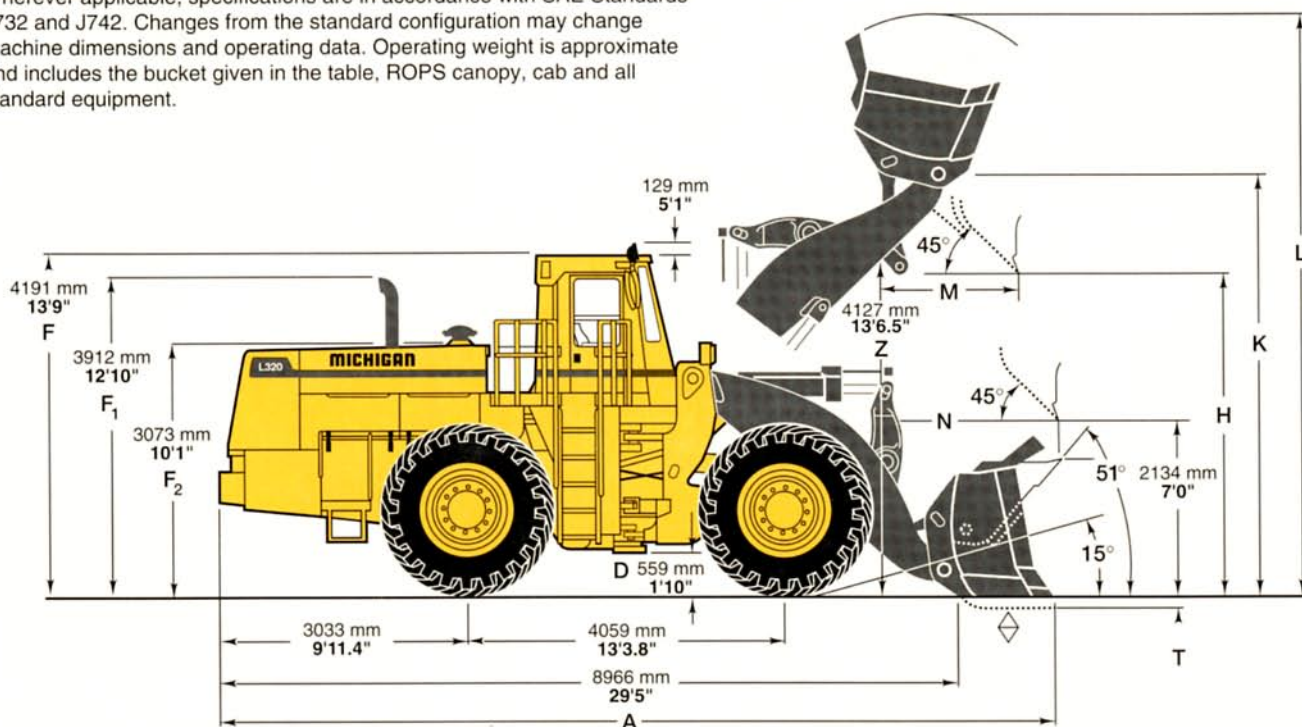
$\otimes$ Add 61 mm (2.6 in) for bucket teeth

$\diamond$ Maximum grading angle 46°

OPERATIONAL DATA & DIMENSIONS - MICHIGAN L320 (Standard Boom)

Tires: 35/65-33 (30PR) L-4

Wherever applicable, specifications are in accordance with SAE Standards J732 and J742. Changes from the standard configuration may change machine dimensions and operating data. Operating weight is approximate and includes the bucket given in the table, ROPS canopy, cab and all standard equipment.



OPERATIONAL DATA - MICHIGAN L320 (Standard Boom)

Tires: 35/65-33 (30PR) L-4

SUPPLEMENTAL OPERATING DATA			Change in operating weight		Change in static tipping load straight		Change in static tipping load at full turn	
Air conditioner (removal)	kg	lb	-82	-180	-139	-306	-122	-270
Bucket points & adapters								
47 ARL, 1 1/2 leg	kg	lb	+263	+580	-330	-728	-289	-637
57 ARL, 1 1/2 leg	kg	lb	+422	+930	-529	-1167	-463	-1021
cutting edge wear caps	kg	lb	+227	+500	-286	-627	-249	-549
Cab (removal)	kg	lb	-386	-850	-276	-609	-275	-606
Counterweight	kg	lb	+1161	+2560	+2454	+5410	+2155	+4750
Fenders, front	kg	lb	+159	+350	+45	+100	+45	+100
Fenders, rear with steps	kg	lb	+454	+1000	+735	+1620	+653	+1440
ROPS canopy (removal)	kg	lb	-771	-1700	-552	-1218	-550	-1212
Secondary steering	kg	lb	+45	+100	+64	+142	+58	+128
3rd hydraulic control	kg	lb	+52	+115	+42	+93	+41	+90
Optional tires:								
35/65-33 (24PR) L-4	kg	lb	-640	-1412	-449	-990	-408	-900
35/65-33 (24PR) L-5	kg	lb	+337	+744	+236	+520	+218	+480
35/65-33 (30PR) L-5	kg	lb	+662	+1460	+467	+1030	+422	+930
35/65R33 XRDNAT★	kg	lb	-802	-1769	-562	-1240	-512	-1130
35/65R33 XRD1AT★	kg	lb	-628	-1384	-440	-970	-399	-880
35/65R33 XRD2AT★	kg	lb	-513	-1131	-363	-800	-326	-720
35/65R33 RL5E★	kg	lb	+172	+78	+120	+54	+110	+50

DIMENSIONS AFFECTED BY TIRE SIZE

MACHINE DIMENSIONS			35/65R33 XRDNAT		35/65-33 (24PR) L-4 (30PR) L-4		35/65-33 (24PR) L-5 (30PR) L-5		35/65R33 XRD1AT XRD2AT RL5E	
D	mm	ft in	-19	-1.2"	0	0	+13	+0.5"	+13	+0.5"
F	mm	ft in	-19	-1.2"	0	0	+13	+0.5"	+13	+0.5"
F ₁	mm	ft in	-19	-1.2"	0	0	+13	+0.5"	+13	+0.5"
F ₂	mm	ft in	-19	-1.2"	0	0	+13	+0.5"	+13	+0.5"
H ⊖	mm	ft in	-19	-1.2"	0	0	+13	+0.5"	+13	+0.5"
K	mm	ft in	-19	-1.2"	0	0	+13	+0.5"	+13	+0.5"
L	mm	ft in	-19	-1.2"	0	0	+13	+0.5"	+13	+0.5"
M ⊕	mm	ft in	+19	+0.6"	0	0	-13	0	-13	-0.5"
N ⊕	mm	ft in	+19	+0.6"	0	0	-13	0	-13	-0.2"
T ⊗	mm	ft in	+19	+1.2"	0	0	-13	-0.5"	-13	-0.2"
Y	mm	ft in	0	+0.5"	0	0	0	-0.2"	0	+0.5"
Z	mm	ft in	-19	-1.2"	0	0	+13	+0.5"	+13	+0.5"
a ₂	mm	ft in	0	+0.2"	8278	27'1.9"	0	-0.1"	0	+0.2"
a ₃	mm	ft in	0	+0.2"	4646	15'2.9"	0	-0.1"	0	+0.2"

OPERATIONAL DATA - MICHIGAN L320 (Long Boom)

Tires: 35/65-33 (30PR) L-4

BUCKET TYPE		Straight Edge Rock	Spade-Nose Rock	Light Materials
Volume, heaped	m ³	5,7	5,7	11,5
	yd ³	7.5	7.5	15.0
struck	m ³	4,7	4,9	9,5
	yd ³	6.1	6.4	12.6
Bucket weight	kg	4 195	4 377	4 681
	lb	9,250	9,650	10,320
Static tipping load, straight	kg	30 405	29 381	29 770
	lb	67,031	64,773	65,630
full turn	kg	27 031	26 089	26 390
	lb	59,593	57,516	58,180
Breakout force	kN	490,4	400,5	389,6
	lbf	110,200	90,000	87,600
A	mm	10 757 $\triangle$	11 074 $\triangle$	11 125
	ft in	35'3.5"	36'4"	36'6"
H	mm	4 204 $\ominus$	4 051 $\ominus$	3 962
	ft in	13'9.5"	13'3.5"	13'0"
K	mm	5 436	5 436	5 436
	ft in	17'10"	17'10"	17'10"
L	mm	7 493	7 493	7 976
	ft in	24'7"	24'7"	26'2"
M	mm	1 714 $\oplus$	1 905 $\oplus$	1 968
	ft in	5'7.5"	6'3"	6'5.5"
N	mm	2 730 $\oplus$	2 870 $\oplus$	2 934
	ft in	8'11.5"	9'5"	9'7.5"
T	mm	84 $\otimes$	84 $\otimes$	84
	ft in	3.3"	3.3"	3.3"
V	mm	3 962	3 962	4 446
	ft in	13'0"	13'0"	14'7"
a ₁ Clearance circle (over bucket in carry position)	mm	18 313	18 313	18 872
	ft in	60'1"	60'1"	61'11"
Operating weight	kg	45 604	45 786	46 181
	lb	100,540	100,940	101,810

* Bolt-on Cutting Edge adds 0.3 m³ (0.4 yd³) to heaped capacity.

Add 651 mm (2.56 in) bolt-on cutting edge

Deduct 460 mm (1.81 in) bolt-on cutting edge

Add 460 mm (1.81 in) bolt-on cutting edge

$\triangle$ Add 322 mm (12.7 in) for bucket teeth

$\ominus$ Deduct 234 mm (9.2 in) for bucket teeth

$\oplus$ Add 361 mm (14.2 in) for bucket teeth

$\otimes$ Add 61 mm (2.6 in) for bucket teeth

$\diamond$ Maximum grading angle 46°

OPERATIONAL DATA - MICHIGAN L320 (Long Boom)

Tires: 35/65-33 (30PR) L-4

SUPPLEMENTAL OPERATING DATA			Change in operating weight		Change in static tipping load straight		Change in static tipping load at full turn	
Air conditioner (removal)	kg	lb	-82	-180	-139	-306	-122	-270
Bucket points & adapters								
47 ARL, 1 1/2 leg	kg	lb	+263	+580	-334	-735	-297	-655
57 ARL, 1 1/2 leg	kg	lb	+422	+930	-535	-1180	-476	-1050
cutting edge wear caps	kg	lb	+227	+500	-286	-627	-249	-549
Cab (removal)	kg	lb	-386	-850	-268	-590	-236	-520
Counterweight	kg	lb	+1161	+2560	+2318	+5110	+2037	+4490
Fenders, front	kg	lb	+159	+350	+45	+100	+41	+90
Fenders, rear with steps	kg	lb	+454	+1000	+712	+1570	+630	+1390
ROPS canopy (removal)	kg	lb	-771	-1700	-552	-1218	-550	-1212
Secondary steering	kg	lb	+45	+100	+63	+140	+54	+120
3rd hydraulic control	kg	lb	+52	+115	+41	+90	+36	+80
Optional tires:								
35/65-33 (24PR) L-4	kg	lb	-640	-1412	-426	-940	-385	-850
35/65-33 (24PR) L-5	kg	lb	+334	+744	+222	+490	+204	+450
35/65-33 (30PR) L-5	kg	lb	+662	+1460	+440	+970	+399	+880
35/65R33 XRDNAT★	kg	lb	-802	-1769	-531	-1170	-485	-1070
35/65R33 XRD1AT★	kg	lb	-628	-1384	-417	-920	-381	-840
35/65R33 XRD2AT★	kg	lb	-513	-1131	-340	-750	-308	-680
35/65R33 RL5K★	kg	lb	+332	+732	+212	+468	+193	+426

DIMENSIONS AFFECTED BY TIRE SIZE

MACHINE DIMENSIONS			35/65R33 XRDNAT		35/65-33 (24PR) L-4 (30PR) L-4		35/65-33 (24PR) L-5 (30PR) L-5		35/65R33 XRD1AT XRD2AT RL5E	
D	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
F	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
F ₁	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
F ₂	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
H ⊖	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
K	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
L	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
M ⊕	mm	ft in	+19	+0.75"	0	0	-13	-0.5"	-13	-0.5"
N ⊕	mm	ft in	+19	+0.75"	0	0	-13	-0.5"	-13	-0.5"
T ⊗	mm	ft in	+19	+0.75"	0	0	-13	-0.5"	-13	-0.5"
Y	mm	ft in	0	0	0	0	0	0	0	0
Z	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
a ₂	mm	ft in	0	0	8278	27'1.9"	0	0	0	0
a ₃	mm	ft in	0	0	4646	15'2.9"	0	0	0	0

- △ Add 322 mm (12.7 in) for bucket teeth
- ⊖ Deduct 234 mm (9.2 in) for bucket teeth
- ⊕ Add 274 mm (10.8 in) for bucket teeth
- ⊗ Add 61 mm (2.6 in) for bucket teeth
- ◇ Maximum grading angle 44°

OPERATIONAL DATA - MICHIGAN L320 (Long Boom)

Tires: 35/65-33 (30PR) L-4

SUPPLEMENTAL OPERATING DATA			Change in operating weight		Change in static tipping load straight		Change in static tipping load at full turn	
Air conditioner (removal)	kg	lb	-82	-180	-139	-306	-122	-270
Bucket points & adapters								
47 ARL, 1 1/2 leg	kg	lb	+263	+580	-334	-735	-297	-655
57 ARL, 1 1/2 leg	kg	lb	+422	+930	-535	-1180	-476	-1050
cutting edge wear caps	kg	lb	+227	+500	-286	-627	-249	-549
Cab (removal)	kg	lb	-386	-850	-268	-590	-236	-520
Counterweight	kg	lb	+1161	+2560	+2318	+5110	+2037	+4490
Fenders, front	kg	lb	+159	+350	+45	+100	+41	+90
Fenders, rear with steps	kg	lb	+454	+1000	+712	+1570	+630	+1390
ROPS canopy (removal)	kg	lb	-771	-1700	-552	-1218	-550	-1212
Secondary steering	kg	lb	+45	+100	+63	+140	+54	+120
3rd hydraulic control	kg	lb	+52	+115	+41	+90	+36	+80
Optional tires:								
35/65-33 (24PR) L-4	kg	lb	-640	-1412	-426	-940	-385	-850
35/65-33 (24PR) L-5	kg	lb	+334	+744	+222	+490	+204	+450
35/65-33 (30PR) L-5	kg	lb	+662	+1460	+440	+970	+399	+880
35/65R33 XRDNAT★	kg	lb	-802	-1769	-531	-1170	-485	-1070
35/65R33 XRD1AT★	kg	lb	-628	-1384	-417	-920	-381	-840
35/65R33 XRD2AT★	kg	lb	-513	-1131	-340	-750	-308	-680
35/65R33 RL5K★	kg	lb	+332	+732	+212	+468	+193	+426

DIMENSIONS AFFECTED BY TIRE SIZE

MACHINE DIMENSIONS			35/65R33 XRDNAT		35/65-33 (24PR) L-4 (30PR) L-4		35/65-33 (24PR) L-5 (30PR) L-5		35/65R33 XRD1AT XRD2AT RL5E	
D	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
F	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
F ₁	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
F ₂	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
H ⊖	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
K	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
L	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
M ⊕	mm	ft in	+19	+0.75"	0	0	-13	-0.5"	-13	-0.5"
N ⊕	mm	ft in	+19	+0.75"	0	0	-13	-0.5"	-13	-0.5"
T ⊗	mm	ft in	+19	+0.75"	0	0	-13	-0.5"	-13	-0.5"
Y	mm	ft in	0	0	0	0	0	0	0	0
Z	mm	ft in	-19	-0.75"	0	0	+13	+0.5"	+13	+0.5"
a ₂	mm	ft in	0	0	8278	27'1.9"	0	0	0	0
a ₃	mm	ft in	0	0	4646	15'2.9"	0	0	0	0

- △ Add 322 mm (12.7 in) for bucket teeth
- ⊖ Deduct 234 mm (9.2 in) for bucket teeth
- ⊕ Add 274 mm (10.8 in) for bucket teeth
- ⊗ Add 61 mm (2.6 in) for bucket teeth
- ◇ Maximum grading angle 44°

STANDARD EQUIPMENT			
AIR CLEANER, DRY TYPE, DUAL ELEMENT WITH EXHAUST ASPIRATED PRECLEANER ALTERNATOR, 24V, 100A BATTERY DISCONNECT, LOCKABLE BOOM & BUCKET CONTROL LEVERS, FINGERTIP BOOM & BUCKET LINKAGE, SEALED PINS BOOM KICKOUT, AUTOMATIC, ADJUSTABLE BRAKE SYSTEM, SECONDARY BRAKES, 4-WHEEL HYDRAULIC WET DISC, LIQUID COOLED BUCKET LEVELER, AUTOMATIC CAB ACCESS STEPS & HANDRAILS (SAE J185) CAB, Non-ROPS Acoustical Lining Door Hold-Open Struts (2) Doors (2); Lockable with self-locking, sliding glass windows Electrical System: 24V, circuit breaker protected, pre-wired for optional accessories Environmental Control: Air Conditioner, Btu/h (kW) Heater/Defroster/Pressurizer	Btu/h (kW) with three-speed blower fan Floor Mat Interior Lights, red & white Interior Rearview Mirror Safety Glass, Tinted Seat Belt (SAE J386) Seat, suspension, 6-way adjustable Steering Wheel Spinner Knob Sun Visor Windshield Wiper & Washer, front & rear COLD START AID, ETHER INJECTION DIFFERENTIALS, LIMITED SLIP, FRONT & REAR DRAWBAR WITH PIN DRIVESHAFT GUARD FRAME, BOTTOM ENCLOSURES GRILLE, REAR SWING-OUT HYDRAULIC FLUID TO AIR COOLER HYDRAULIC PRESSURE TEST PORTS, QUICK CONNECT INSTRUMENTS/GAUGES: Air Cleaner Restriction Indicator Engine Coolant Temperature Gauge Engine Oil Pressure Gauge Fuel Gauges, tank and dash mounted	Hourmeter Sight Gauges: Engine Coolant Level Hydraulic Fluid Level Transmission Fluid Level Transmission/Torque Converter Fluid Temperature Gauge Voltmeter ISOLATION MOUNTS: Cockpit, Engine, Radiator, Transmission LIGHTS: Stop & Tail Combination, 2 rear Work, 4 front, 4 rear LUBRICATION, MANIFOLD TYPE, GROUND ACCESSIBLE MIRRORS, REARVIEW (2), EXTERIOR NEUTRAL START FEATURE REMOTE DRAIN FOR ENGINE OIL, COOLANT & TRANSMISSION FLUID ROPS/FOPS CANOPY (SAE 1040, ISO 3471) (SAE J231, ISO 3449) SIDE PANELS, ENGINE HOOD, LOCKABLE STEERING FRAME LOCK TIRES: 35/65-33 (30PR) L-4 TRANSMISSION: Declutch pedal with dash mounted on/off switch	Powershift, with directional clutch modulation Shift Control, single lever electric VANDALISM LOCK, PROVISION FOR: Batteries, Engine Coolant, Fuel, Hydraulic Fluid, Transmission/Torque Converter Fluid WARNING ALARMS: Horn, electric Reverse Alarm (SAE J994) WARNING & MONITORING LIGHTS: Air Conditioner Malfunction Alternator Malfunction Brake Pump/Differential Pressure Brake System, front Brake System, rear Engine Coolant Temperature Engine Oil Pressure Hydraulic Fluid Temperature Low Fuel Level Parking Brake Applied Transmission Filter Restriction Transmission Temperature
OPTIONAL EQUIPMENT			
Accessory Power Converter, 12V/6A Air Conditioner (Removal) Beacon, Rotating, Amber Bucket (See Operational Data): Cutting Edge Wear Caps Points & Adapters Cab (Removal) Canopy, Open ROPS/FOPS Counterweight 1161 kg (2560 lb) Engine Oil Fill & Evacuation (Wiggins) Engine Preheater, Coolant & Oil (120V & 240V) Engine Shutdown to Idle Kit: High Coolant Temperature Low Engine Oil Pressure	European Accessory Package Fan, reversible Fenders, front Fenders, rear with steps Fire Extinguisher Fuel, Fast Fill Coupler (Wiggins) Gauge, Hydraulic Fluid Level Guards: Grille Transmission Windshield Hydraulic Control, 3 Spool Valve, Piping & Controls Hydraulic Fluid Fill & Evacuation (Wiggins) Instrument Cover Kit (ROPS/FOPS Canopy)	Lights, work, (2), extra, hood mounted Logger Package Long Boom Lubrication System, automatic (Trabon) Lubrication System, single point manual (Trabon) Mud Flaps (2), front, use with front fenders Radiator, L & M Radiator Sand Grid Radiator Shutter Kit Reversible Fan ROPS Canopy (SAE J1040) (ISO 3471) (Removal) Secondary Steering (Electric)	Side Panels, Wire Mesh Tiefbau Kit (for German Regulations) Warning & Monitor Lights: Coolant Level Hydraulic Filter Restriction Indicator with Low Hydraulic Fluid Level Warning Tires: 35/65-33 (24PR) L-4 35/65-33 (24PR) L-5 35/65-33 (30PR) L-5 35/65R33 XRDNAT ★ 35/65R33 XRD1AT ★ 35/65R33 XRD2AT ★ 35/65R33 RL5E

Under our policy of continuous product improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

VME Industries Sweden AB

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