Euclid R130

MAXIMUM GMW
480,000 lb (217 700 kg)

PAYLOAD RANGE
130 TO 152.5 TONS
(118 TO 138.4 TONNES)

COMMAND CAB II

ALL-HYDRAULIC BRAKING

ATEC AUTOMATIC SHIFT CONTROL

NEOCON SUSPENSION

SEPARATE HYDRAULIC RESERVOIRS

NON-WEARING TRANSMISSION RETARDER

COUPLED PLANETARY FINAL DRIVE SYSTEM

EUCLID

ENGINE

Make	Detroit Diesel	Cummins
Model	12V-149TIB	KTTA38-C
Type	2 Cycle	4 Cycle
Aspiration	Turbocharged/ Intercooled	Turbocharged
Rated Output (SAE)	1350 bhp @ 1900 rpm (1007 kW)	1350 bhp @ 2100 rpm (1007 kW)
Flywheel Output (SAE)	1200 bhp @ 1900 rpm (895 kW)	1200 bhp @ 2100 rpm (895 kW)
No. Cylinders	12	12
Bore & Stroke	5-3/4" x 5-3/4" (146 mm x 146 mm)	6-1/4" x 6-1/4" (159 mm x 159 mm)
Displacement	1788 in³ (29,3 litres)	2300 in³ (37,7 litres)
Max. Torque	3909 lb-ft @ 1400 rpm (3300 N•m)	3882 lb-ft @ 1500 rpm (5264 N•m)
Starting	Air	Air

TRANSMISSION

Allison CLBT-9681. Planetary type, full automatic shifting. Integral torque converter with automatic lock-up in all ranges and hydraulic retarder. Remote mounted, 6 forward speeds, 1 reverse. Allison Transmission Electronic Control (ATEC) shift system.

		STANDARD 1.56:1 Diff. 17.06:1 Plan.		OPTIONAL 1.56:1 Diff. 21.44:1 Plan.		OPTIONAL 1.56:1 Diff. 14.23:1 Plan.	
Range	Gear Ratio	mph	(km/h)	mph	(km/h)	mph	(km/h)
1	4.22	6.5	(10,5)	5.2	(8,4)	7.8	(12,6)
2	3.05	9.1	(14,6)	7.2	(11,6)	10.9	(17,5)
3	2.32	11.9	(19,2)	9.5	(15,3)	14.3	(23,0)
4	1.67	16.6	(26,7)	13.2	(21,2)	19.9	(32,0)
5	1.00	27.7	(44,6)	22.1	(35,5)	33.2	(53,4)
6	0.73	38.5	(61,9)	30.6	(49,3)	46.1	(74,2)
R	5.75	4.8	(7,8)	3.8	(6,2)	5.8	(9,3)

TIRES

Standard - Front and Rear — **Rim Width**
Goodyear 33.00-51(50)E-4 ..... 24.0" (610 mm)
Optional - Front and Rear
Goodyear 33.00R51★★RL-4H ..... 24.0" (610 mm)
Plus optional Goodyear tire types, treads and ply ratings.

LOAD CAPACITY

	yd³	(m³)
Struck (SAE)	65.8	(50,3)
Heap 3:1	85.1	(65,1)
Heap 2:1 (SAE)	94.0	(71,9)
Payload	**Tons**	**(Tonnes)**
From	130.0	(117,9)
Maximum	152.5	(138,4)

Based on material density, VME will size an optional body. Consult VME 's Market Support Department.

ELECTRICAL

Twenty-four volt lighting and accessories system. Seventy-five amp alternator with integral transistorized voltage regulator. Two 12 volt heavy duty batteries connected in series.

DRIVE AXLE

Full floating axle shafts, reduction provided by Euclid Model 2655 differential and dual path planetary with balanced life gearing in each wheel.

Ratios	Standard	Optional	Optional
Differential	1.56:1	1.56:1	1.56:1
Planetary	17.06:1	21.44:1	14.23:1
Total Reduction	26.61:1	33.45:1	22.20:1
Maximum Speeds			
with 33.00-51 tires	38.5 mph (61,9 km/h)	30.6 mph (49,3 km/h)	46.1 mph (74,2 km/h)

The R130 utilizes a coupled planetary system with two sets of gears in each wheel. Each set of gears helps drive its respective wheel, effectively sharing torque loads. This concept keeps individual gear loading to a minimum, thereby promoting longer component lives.

HOIST

Two (2) Euclid three-stage, double-acting cylinders, inverted and outboard mounted. Separate reservoir and independent gear pump. Control valve mounted on reservoir.

Body Raise Time ..... 20 sec.
Hoist Pump Output (@ 2100 rpm) ..... 161 g/m (609 l/m)
System Relief Pressure ..... 2500 psi (17 237 kPa)

WEIGHTS

	lb	(kg)
Chassis with Hoists	140,700	(63 822)
Body	34,250	(15 540)
Net Machine Weight	174,950	(79 357)
Front Axle	82,450	(37 399)
Rear Axle	92,500	(41 958)
Maximum GMW with Selected Tires		
33.00-51(50)E-4		
Max. Gross Machine Weight	480,000	(217 700)
Net Machine Weight	174,950	(79 357)
33.00R51★★RL-4H		
Max. Gross Machine Weight	480,000	(217 700)
Net Machine Weight	176,750	(80 174)
Maximum Payload	305,050	(138 371)

Loaded Weight Distribution
Front - 33% Rear - 67%
Machine weight based on 50% fuel
Maximum gross machine weight not to exceed 480,000 lbs (217 700 kg) including options, fuel and payload.

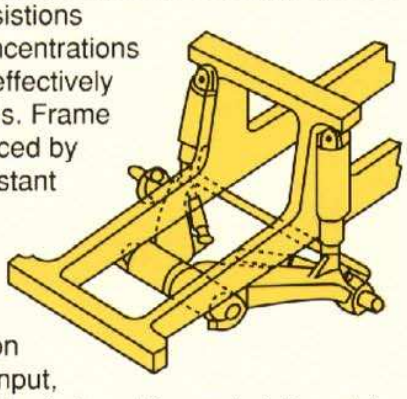
Options:

Body Liners, Complete:		
3/4" (19 mm) floor		
3/8" (10 mm) side		
3/8" (10 mm) front		
1/4" (6 mm) canopy		
1/4" (6 mm) corners		
3/8" (10 mm) top rail		
1/2" (13 mm) end protectors	17,700	(8 029)
Tires (set of 6):		
33.00R51★★RL-4H (Add'l. weight)	1,800	(820)

SUSPENSION

Front and Rear Suspension
Independent trailing arm for each front wheel. Neocon struts containing energy-absorbing gas and compressible fluid are mounted between trailing arm and frame. Rebound feature included. "A" frame structure, integral with axle housing, links drive axle to frame at forward center point with pin and spherical bushing. Track rod provides lateral stability between frame and drive axle. Rear mounted Neocon struts suspend drive axle from frame. Neocon struts provide variable damping and rebound feature.

The Euclid frame and suspension are designed to work in unison to provide maximum structural integrity and operator comfort. The tapered box beam frame rail construction provides superior resistance to bending and torsional loads while eliminating unnecessary weight. VME achieves long frame fatigue life through proven design and manufacturing practices. Smooth frame transistions minimize stress concentrations and steel castings effectively distribute input loads. Frame life is further enhanced by utilizing fatigue resistant weld joints and locating welds in low stress areas. The unique trailing arm front suspension absorbs haul road input, minimizing suspension-induced frame twisting while providing independent tire action. Ride struts are mounted with spherical bushings, eliminating extreme sidewall forces by insuring a purely axial input to the ride strut. The wide track stance of the trailing arm design and long wheel base assure a more stable, comfortable ride.



The suspension struts employ gas and Neocon-x fluid as the energy-absorbing media. This suspension continues to absorb energy when extreme dynamic loads are generated which significantly contributes to improved isolation of the operator and machine components.

FRAME

Box section main frame rails bridged by three crossmembers, front bumper and front suspension tube. Rails are constant taper, constructed of 100,000 psi (689 N/mm^2) yield strength steel. Two rear crossmembers have integral suspension and drive axle mountings. Crossmember to frame rail junctions use large radii to minimize stress concentrations.

COMMAND CAB II

Structurally Sound
Command Cab II, double wall construction of 11 gauge inner and outer steel panels lends itself to a more structurally sound cab. Foam rubber lining material along with foam rubber backed carpeting and multiple layered floor mat act to absorb sound and control interior temperature. A three-point rubber iso-mount arrangement to the deck surface minimizes vibration to the operator's compartment.

Ease of Operation and Systems Monitoring
A wrap-around style dashboard positions the controls within easy reach and visual contact. A full compliment of easy-to-read, color banded gauges with international symbols and centrally positioned tachometer, speedometer and bank of warning lights provide the operator information required to safely pilot the machine.

Excellent Serviceability
A removable front closure allows easy access to electrical components, service brake valve, retarder valve and washer bottle. All electrical junction points are located in the front compartment. The filter is located to the side of the cab and servicing requires the removal of only two bolts. The upper dash utilizes four (4) removable panels to house gauges and customer options with each individually accessible.

Designed for Operator Comfort
Command Cab II standard equipment includes a six-way adjustable air seat, tilt steering wheel, filtered ventilation and a fully upholstered trainers seat that folds down to reveal a tray for lunch boxes and other gear.

STEERING

Closed center full time hydrostatic power steering system using two double-acting cylinders, piston type pump and combined brake/steering system reservoir. Accumulator provides supplementary steering in accordance with SAE J53 and ISO 5010.

Steering Angle	42°
Turning Diameter (SAE)	80'6" (24,5 m)
Steering Pump Output (@ 2100 rpm)	34 g/m (129 l/m)
Operating System Pressure	2500 psi (17 237 kPa)

ALL-HYDRAULIC BRAKING

Service
All-hydraulic actuated. Two calipers per disc, front and rear. Calipers are internally ported, each containing three pairs of opposing pistons.

Front Axle and Rear Axle
BFGoodrich Model J6 wheel speed brakes

Disc Diameter Each	42 in (106,7 cm)
Lining Area Per Axle	640 in² (4 129 cm²)
Brake Pressure (Max.)	2500 psi (17 237 kPa)

Secondary
Three independent hydraulic circuits within the service brake system provide secondary stopping capability. System is manually or automatically applied to stop machine within prescribed braking distance.

Parking
Spring-on, hydraulic-off disc brakes mounted behind tramsmission on driveline provide parking capabilities.
Brake systems comply with SAE J1473 and ISO 3450.

Retarder
Foot operated valve allows operator to control oil flow into paddlewheel type retarder integral with transmission housing. Provides constant speed control on downhill hauls.

Maximum retarding output (includes engine friction bhp) @ 2200 rpm	2561 bhp (1 910 kW)

The Euclid R130 is equipped with an all-hydraulic actuated braking system providing increased braking force and quick system response. A primary accumulator stores oil under sufficient pressure so that 100% braking pressure is always available.

The main valves are conveniently located at shoulder height on the forward left hand frame rail. The modular valve package enhances serviceability as all pressure checks and system troubleshooting can be made at this central location. Steel tubing is used to eliminate line swell and ruptures commonly associated with hose assemblies. Sheet metal guards protect the valve package and tubing. The system is pressure proportioned, front to rear, for improved slippery road control.

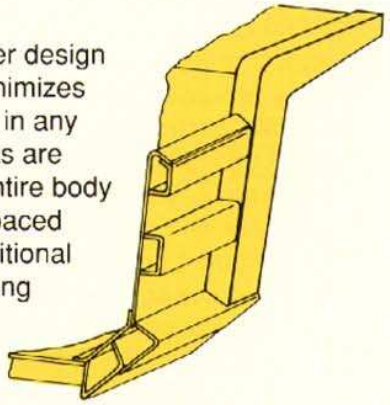
BODY

Flat floor, sloped tailchute, continuously exhaust heated. High yield strength 100,000 psi (689 N/mm²) alloy steel used in thickness of:

Floor	3/4" (19 mm)
Front	3/8" (10 mm)
Sides	3/8" (10 mm)
Canopy	3/16" (5 mm)

High yield strength 100,000 psi (689 N/mm²) alloy steel also used for canopy side members and floor stiffeners. Body is rubber cushioned on frame.

The horizontal stiffener design of the Euclid body minimizes stress concentrations in any one area. Load shocks are dissipated over the entire body length. The closely spaced stiffeners provide additional protection by minimizing distances between unsupported areas.



SERVICE CAPACITIES

	gallons	(litres)
Crankcase (incl. filters)		
Cummins	40.0	(151,4)
Transmission	30.0	(113,6)
Cooling System	95.0	(359,6)
Fuel Tank	510.0	(1 930,4)
Hydraulics		
Hoist Tank	133.2	(504,2)
Steering Tank	39.7	(150,3)
Drive Axle		
Differential	60.0	(227,1)
Planetaries	40.0	(151,4)

AIR

Compressor	12.0 cfm	(5,7 l/s)
Service Air Pressure	125 psi	(860 kPa)
Start System Pressure	125 psi	(860 kPa)
Reservoir Capacity	16 ft³	(453 litres)

STANDARD EQUIPMENT

General

- Air cleaner guards
- Air horns, dual
- Allison Transmission Electronic Control (ATEC)
- Body down indicator, mechanical
- Body prop cable
- Fan guard
- Fully hydraulic brake system
- Ground level air start charge line
- Guard rails around platform
- Hoist interlock
- Hoist kickout
- Mirrors, right & left
- Moisture ejector
- Mud flaps
- Operator arm guard
- Park brake interlock
- Radiator grille guard
- Reverse alarm
- Rock ejector bars
- Supplementary steering system, accumulator
- Tow hooks, front

Cab

- Ash tray
- Cab interior light
- Cigar lighter
- Engine shutdown switch
- Heater & defroster
- Load & hold switch
- Operator seat, air ride
- Operator seat belt
- Passenger seat & belt
- Rubber floor mat
- Sun visor
- Tilt steering wheel
- Tinted glass, all windows
- Windshield washer
- Windshield wiper

Gauges and Indicators

- Air cleaner restriction gauge
- Air start pressure gauge
- Clutch pressure gauge
- Converter lock-up indicator light
- Converter oil temperature gauge
- Coolant temperature gauge
- Engine oil pressure gauge
- Gauge lights rheostat
- High beam indicator light
- Hourmeter
- Hydraulic filter restriction indicator light
- Parking/Load & hold brake indicator light
- Rear brake malfunction indicator light
- Speedometer
- Steer system malfunction indicator light
- Steering filter restriction indicator light
- Steering pressure gauge
- Tachometer
- Transmission oil level sight gauge
- Voltmeter

Machine Lights

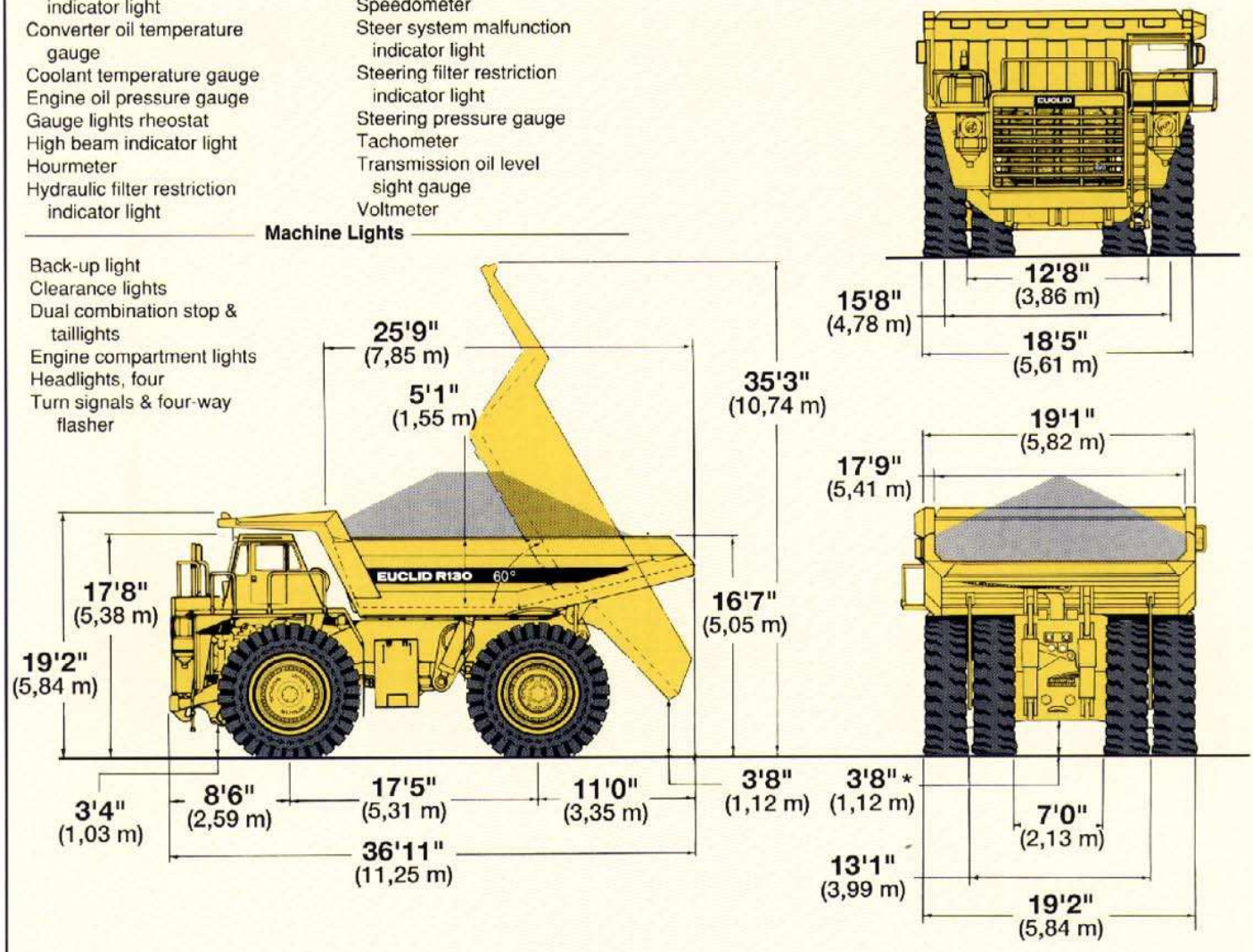
- Back-up light
- Clearance lights
- Dual combination stop & taillights
- Engine compartment lights
- Headlights, four
- Turn signals & four-way flasher

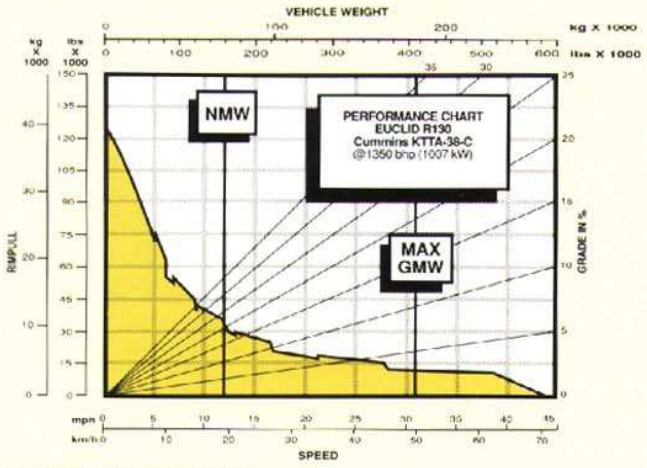
OPTIONAL EQUIPMENT

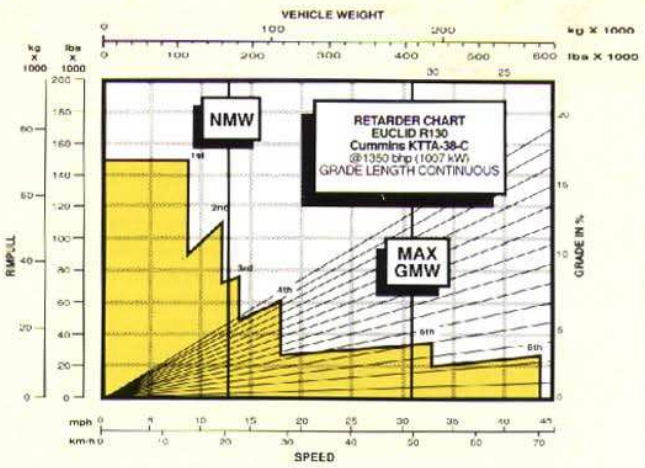
- Air conditioner
- Air dryer
- Alarm system, four function (low oil pressure, high coolant temperature, low coolant level, high conv. temperature)
- Body capacity, 120 short ton (109 metric tonne)
- Body liner (400 BHN) plates
- Buddy dump
- Centralized lube
- Cold starting aid
- Electric start
- Fast coupling service center (Wiggins)
- Fast fueling system (Wiggins)
- Field repairable core radiator
- Fire protection systems
- Fuel gauge, cab or tank mounted
- Fuel tank, 600 gal. (2271 l)
- Hubodometer
- Kim Hotstart
- Lube system, automatic
- Planetary ratio, 14.23:1
- Planetary ratio, 21.44:1
- Radio

Standard and optional equipment may vary from country to country. Special options provided on request. Consult VME Market Support Department.

Note: Illustration may include optional equipment.
Note: Dimensions shown are for empty machine with 33.00-51 tires.







INSTRUCTIONS:

Diagonal lines represent total resistance (Grade % plus rolling resistance %). Charts based on 0% rolling resistance, standard tires and gearing unless otherwise stated.

1. Find the total resistance on diagonal lines on right-hand border of performance or retarder chart.
2. Follow the diagonal line downward and intersect the NMW or GMW weight line.
3. From intersection, read horizontally right or left to intersect the performance or retarder curve.
4. Read down for machine speed.

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