



CUSTOM PRODUCT BY CATERPILLAR

140G

ALL WHEEL DRIVE MOTOR GRADER

The 140G All Wheel Drive improves motor grader performance in traction limited applications through:

- **High working speeds** — up to 25.7 km/h/16 MPH for snow
- **Increased ditch cutting and front end slope control**
- **Improved steering, less front end drift, and improved side draft control**

A manual lever allows the operator to vary front wheel torque to match operating conditions. The front wheel drive system operates through fifth gear; freewheels in sixth gear.

140G All Wheel Drive Motor Grader, includes the standard 140G arrangement plus All Wheel Drive modifications.

At 2200 RPM:

Normal Operation

1-2 Gears112 kW/150 HP

3-6 Gears134 kW/180 HP

Heavy Duty Operation (All Wheel Drive)

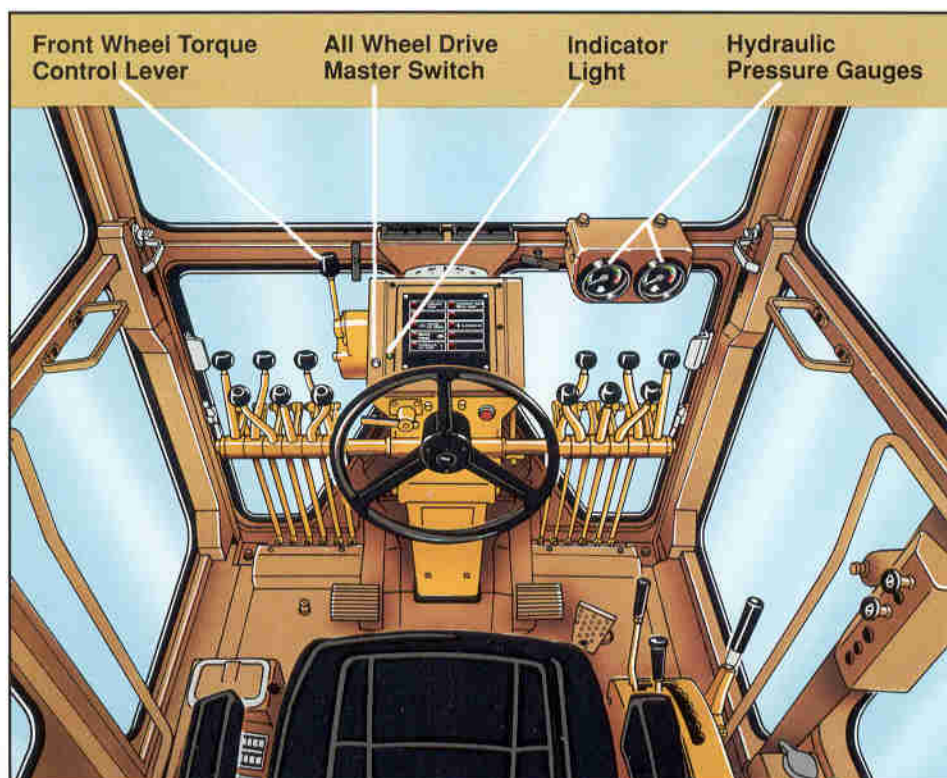
All Gears.....134 kW/180 HP

Note: For standard specifications and features, refer to 140G specification sheet. Machine shown may include optional equipment.



SPECIFICATIONS

- The front wheel drive system is activated by the on/off switch.
- A light on the console reminds the operator that the system is on.
- The manual control lever allows the operator to adjust the hydraulic pressure which controls wheel torque.
- Gauges let the operator know precisely how much pressure is going to the front wheels.



Engine

At 2200 RPM:

Normal Operation:

Gears 1-2112 kW/150 HP

Gears 3-6134 kW/180 HP

All Wheel Drive:

Gears 1-6134 kW/180 HP



Weight (approximate)

Basic operating weight includes lubricants, coolant, full fuel tank, operator, 3658 mm/12' blade with manual sideshift, 14.00-24, 10 PR (G-2) traction-type tires, and low profile ROPS cab.

Weight on front wheels5630 kg/12,400 lb

Weight on rear wheels10 440 kg/23,000 lb

Total Weight16 070 kg/35,400 lb

Add weights of additional equipment from Attachment Selection list of standard 140G specification sheet to obtain total equipped operating weight.



Wheels

Front rim and wheel assemblies are non-interchangeable. Tubeless tires, six 14.00-24, 10 PR (G-2) traction-type.

Optional wheels: 254 mm X 610 mm/10" X 24" and 360 mm X 635 mm/14" X 25".



Hydraulic System

The front wheel drive system uses the same hydraulic tank as the implement system. A 100 cm³/6.1 in³ variable displacement, axial piston pump drives a 1640/655 cm³ / 100/40 in³ low speed, high torque motor in each wheel. Flow divider valves ensure both wheel motors turn at all times, maintaining tractive effort to both front wheels.

In gears one through three, the wheel motors operate at 100% displacement, providing high torque for big blade loads. In gears four and five, the wheel motors operate at 40% displacement providing a high speed range. In sixth gear the motors freewheel, then re-engage when the system is downshifted. Concise control of the front drive system, through the manual control lever, allows the operator to match front wheel torque to every specific job situation.

Gear	1	2	3	4	5	6
km/h	3.9	6.2	9.8	16.2	26.0	41.0
MPH	2.4	3.9	6.1	10.0	16.1	25.5

Wheel Motor Displacement

cm ³	1640	1640	1640	655	655	*
in ³	100	100	100	40	40	*

*Freewheel



Optional Equipment

	Kg	Lb		Kg	Lb
Air Conditioner, complete. Includes heater and pressurizer, plus 75 amp alternator. (Condenser mounted on rear face of cab).....	133	294	Guard (transmission)	177	391
Air Dryer	18	39	Heater, cab (includes pressurizer)	34	76
Alternator (75 amp)	5	11	Hydraulic Systems.....	*	*
Blades:			Lights:		
Hydraulic sideshift;			Work lights (2 front, 2 center)	6	13
With tip control			Cab directional and headlights	9	20
4.3 m/14'	362	799	Cab directional, headlights and bar-mounted flood	13	28
3.7 m/12'	288	635	Bar directional and headlights	9	20
Without tip control			Warning light (rotating beacon)	3	6
4.3 m/14'	265	585	Push Plate (front-mounted).....	511	1,127
3.7 m/12'	191	421	Scarifier:		
4.0 m/13' (requires 8W2402 or 8W2403)			V-type (11 teeth).....	814	1,795
4.0 m X 686 mm X 25 mm/			Straight-type (17 teeth).....	23	50
13' X 27" X 1"	45	100	Seat (shock dampening)	59	130
4.0 m X 610 mm X 25 mm/			Starting Aids:		
13' X 24" X 1"	36	80	Engine coolant heater.....	1	3
Blade Float (hydraulics)	30	66	Starting System		
Independent right-hand/			(low-temperature).....	95	209
left-hand	34	75	Steering System (supplemental).....	63	139
Blade Lift Accumulator	110	243	Tachometer (engine speed).....	3	7
Cab, ROPS (full-height).....	54	120	Tires (optional):		
Circle Drive Slip Clutch.....	9	20	14.00 X 24		
Cutting Edges:			12 PR (G-2).....	41	90
For 4.3 m/14' blade	73	161	RL-2F or XGL	343	756
For 3.7 m/12' blade	67	148	17.5 X 25 (require 3Z4877 wheel rims)		
Defroster (fan):			12 PR (L-2).....	95	209
Front window	2	4	RL-2F or XGL	309	680
Rear window	2	4	Tires (omission).....	-512	-1,128
Differential (tandem drive train with lock-unlock)	43	95	Vandalism Protection	8	19
End Bits.....	11	24	Wheel Rims, 356 mm/14" (set of six)		
Engine Compartment Doors.....	110	242	In place of standard		
Fuel Tank			254 mm/10" rims	176	387
(378.6 liter/100 gal capacity)	91	200	Wiper (rear window):		
Gauge (fuel level):			Full-height cab.....	4	8
Standard 283.9 liter/75 gal tank	4	8	Standard low-profile cab	4	8
Custom 378.6 liter/100 gal tank	1	2			

*See hydraulic systems chart on next page.

Hydraulic Systems (Include valves and operating linkage.)

Side Shift	Tip	Front Scarifier	Plow/Dozer	Rear Ripper	Angle Dozer (High Flow)	Snow Wing (valves)		System Number	Weight*	
						Nrml. Flow	High Flow		kg	lb
■	■							8W2394	19	41
■	■			■				8W2411	40	88
■	■	■						8W2395	29	63
■	■		■			2		8W2389	51	112
■	■	■	■			2		8W2390	61	135
■	■	■		■				3Z4846	50	110
■	■			■		2		3Z4830	54	119
■	■		■					3Z4828	32	70
■	■		■			1	1	3Z4594	51	112
■	■		■			3		3Z4833	60	133
■	■		■	■		2		3Z4829	67	148
■	■		■	■		1	1	3Z4831	67	148
■	■		■	■				3Z4851	48	106
■	■	■	■					3Z4837	41	91
■	■	■	■	■				3Z4847	58	127
■	■	■				2	1	3Z4854	57	125
■		■						3Z4838	42	93
■		■	■					3Z4848	36	74
■	■		■	■	■			3Z4885	58	127
■	■	■	■			1	1	3Z4598	60	133
			■	■				3Z4906	29	65
■	■	■	■			3		3Z4947	70	154

*Change in operating weight.

NOTE: Machine can be equipped with one system only.