

# 400C

TRUCKS

SPECIFICATIONS



## Engine

### 400C

Type.....	DaimlerChrysler OM442LA
Configuration .....	V8, integral engine valve brake, camshaft-driven PTO
Aspiration .....	turbocharged and aftercooled
Cooling system .....	liquid cooled, with a crankshaft-driven viscous fan and air-to-air aftercooler
Rated power (conforms to SAE J1349).....	410 SAE net hp (306 kW) / 429 SAE gross hp (320 kW) @ 2,100 rpm
Maximum net torque.....	1,290 lb.-ft. (1750 Nm) @ 1,200 rpm
Displacement.....	892 cu. in. (14.6 L)

## Transmission

Configuration .....	Allison HD4560 engine mounted automatic planetary, hydraulically actuated multiple-disc clutches, electronic control, hydrodynamic torque converter with lock-up			
Stall torque ratio .....	1.91 to 1			
Vehicle speeds (full load, 2% rolling resistance)	<i>Forward (low range)</i>	<i>Reverse (low range)</i>	<i>Forward (high range)</i>	<i>Reverse (high range)</i>
Gear 1 .....	3 mph (5 km/h)	4 mph (7 km/h)	5 mph (8 km/h)	10 mph (16 km/h)
Gear 2 .....	7 mph (11 km/h)		11 mph (18 km/h)	
Gear 3 .....	9 mph (15 km/h)		16 mph (26 km/h)	
Gear 4 .....	14 mph (23 km/h)		24 mph (38 km/h)	
Gear 5 .....	18 mph (29 km/h)		31 mph (49 km/h)	

## Transfer Box

Configuration .....	remote two-speed, helical geared with lockable torque-proportioning interaxle differential
Output torque split.....	28 front / 72 rear

## Axles

Differential type .....	spiral bevel gear with controlled traction
Final drive type .....	outboard heavy-duty planetary reduction hub

## Braking System

Service brake.....	dual-circuit, air-over-hydraulic, dry-disc brakes on all six wheels
Park and secondary .....	spring-applied, air-released, automatic slack-adjusting mechanical caliper, driveline-mounted, dry disc
Auxiliary brake.....	automatic engine valve brake actuation (includes butterfly exhaust brake valve)
Maximum retardation.....	340 hp (250 kW)

## Pneumatic System

Type.....	four-way pressure protected with air drier, heater and integral unloader valve
System pressure.....	135 psi (930 kPa)

## Electrical System

Voltage.....	24 volt
Battery type .....	twin maintenance free
Battery capacity.....	2 x 100 A.h.
Alternator rating.....	28 volt, 55 amp

## Steering System

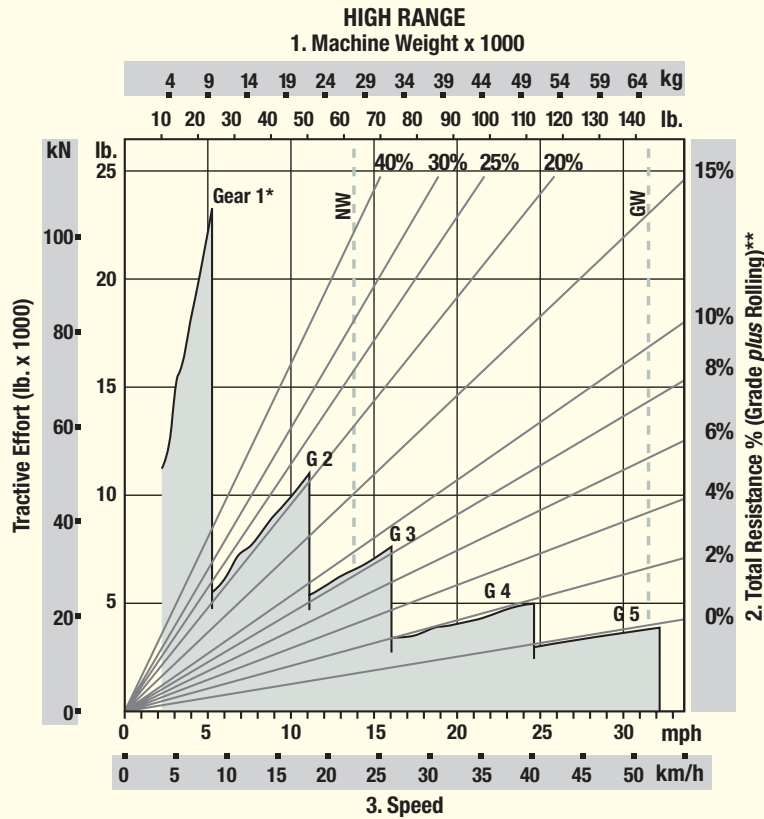
Type.....	hydromechanically articulated with two double-acting hydraulic cylinders
Angle .....	42 degrees side to side
Lock-to-lock turns .....	6

## Hydraulic System

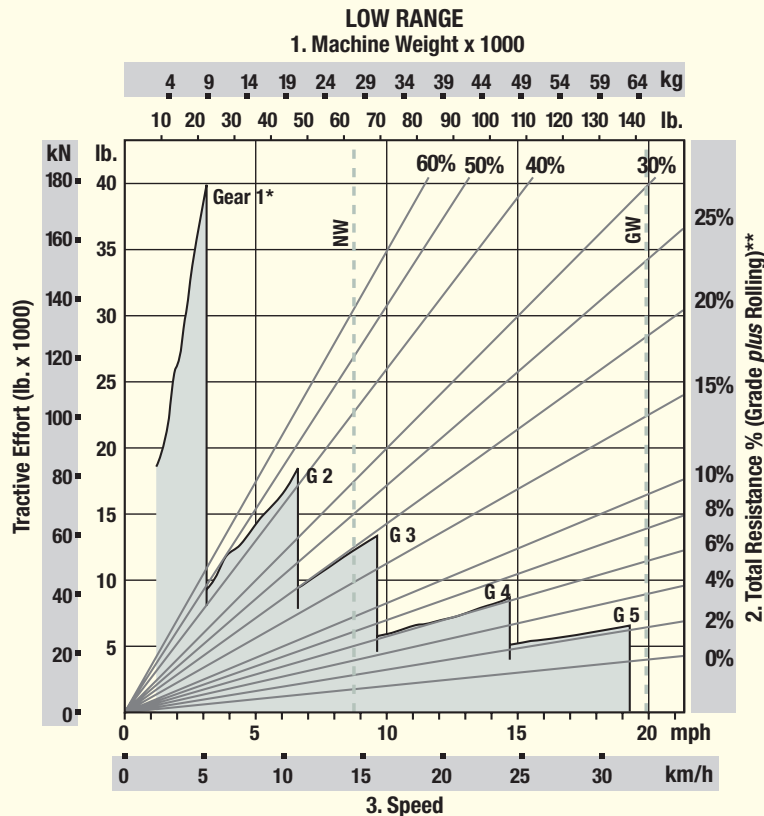
Type.....	closed-center, load-sensing system
Main pump .....	axial piston, variable displacement
Application.....	steering and body-tipping
Flow .....	58 gpm (220 L/min.) @ governed engine speed
Pressure .....	3625 psi (25 000 kPa)
Secondary pump.....	axial piston, variable displacement
Application.....	secondary steering, assist main steering
Flow .....	32 gpm (122 L/min.) @ full ground speed

## Retardation

1. Read from total weight down to % total resistance (diagonal line). 2. From that point, read horizontally to curve with highest attainable speed range. 3. Read down to maximum descent speed.



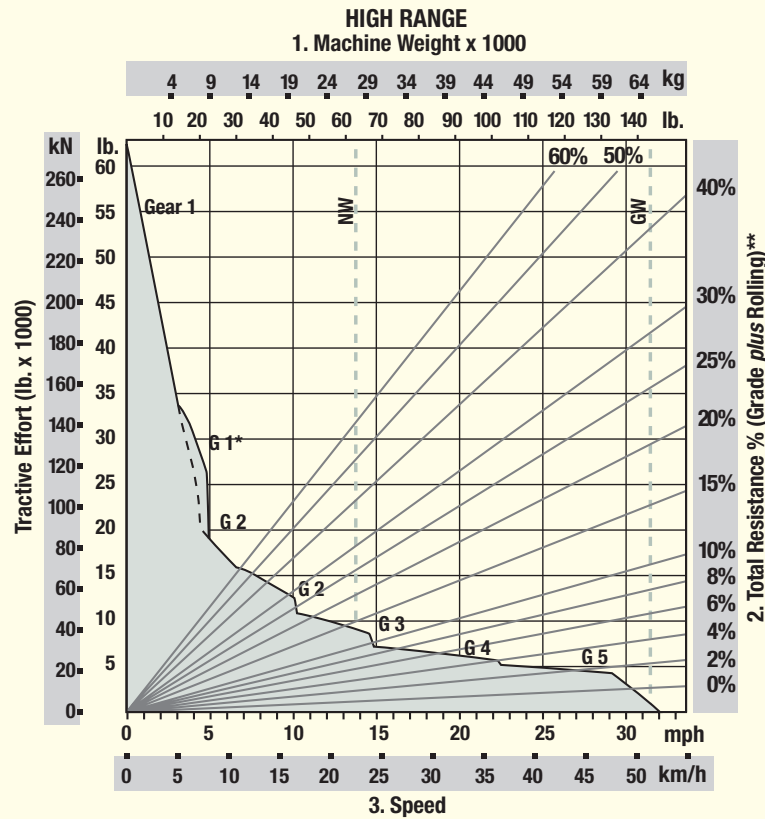
\*Gear 1 lock-up not engaged automatically, engages only when Gear 1 selected manually.  
\*\*2% rolling resistance assumed in chart.



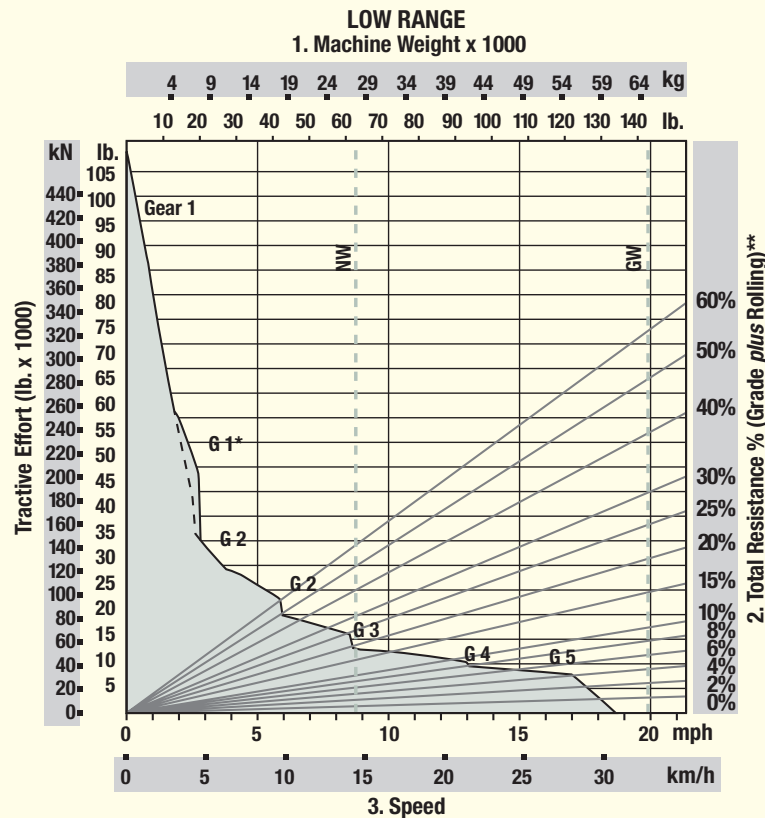
\*Gear 1 lock-up not engaged automatically, engages only when Gear 1 selected manually.  
\*\*2% rolling resistance assumed in chart.

## Gradeability

1. Read from total weight down to % total resistance (diagonal line). 2. From that point, read horizontally to curve with highest attainable speed range. 3. Read down to maximum speed.



\*Gear 1 lock-up not engaged automatically, engages only when Gear 1 selected manually.  
\*\*2% rolling resistance assumed in chart.



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\*\*2% rolling resistance assumed in chart.

## Tires/Wheels

## 400C

Type.....	radial earthmover
Size .....	29.5R25
Maximum ground pressure (loaded).....	23 psi (156 kPa) middle

## Suspension

Front type .....	semi-independent axle movement, leading A-frame supported on oil/nitrogen suspension struts
Rear type .....	load-equalizing pivoting walking beams on each axle with laminated suspension blocks

## Body

Capacity	
Struck.....	22 cu. yd. (17 m <sup>3</sup> )
Heaped.....	29 cu. yd. (22 m <sup>3</sup> ) @ 2 to 1 SAE ratio
Rated payload.....	80,468 lb. (36 500 kg)
Power-down time.....	10 sec.
Raise time.....	19 sec.
Tipping angle.....	70 degrees

## Service Capacities

Fuel tank.....	106 gal. (400 L)	Hydraulic reservoir .....	36.9 gal. (140 L)
Engine oil.....	8.9 gal. (34 L)	Axle oil (front).....	11.8 gal. (45 L)
Engine coolant.....	16.9 gal. (64 L)	Axle oil (middle).....	11.8 gal. (45 L)
Transmission fluid (refill).....	7.3 gal. (28 L)	Axle oil (rear).....	11.8 gal. (45 L)
Transfer case oil .....	2.2 gal. (8.5 L)		

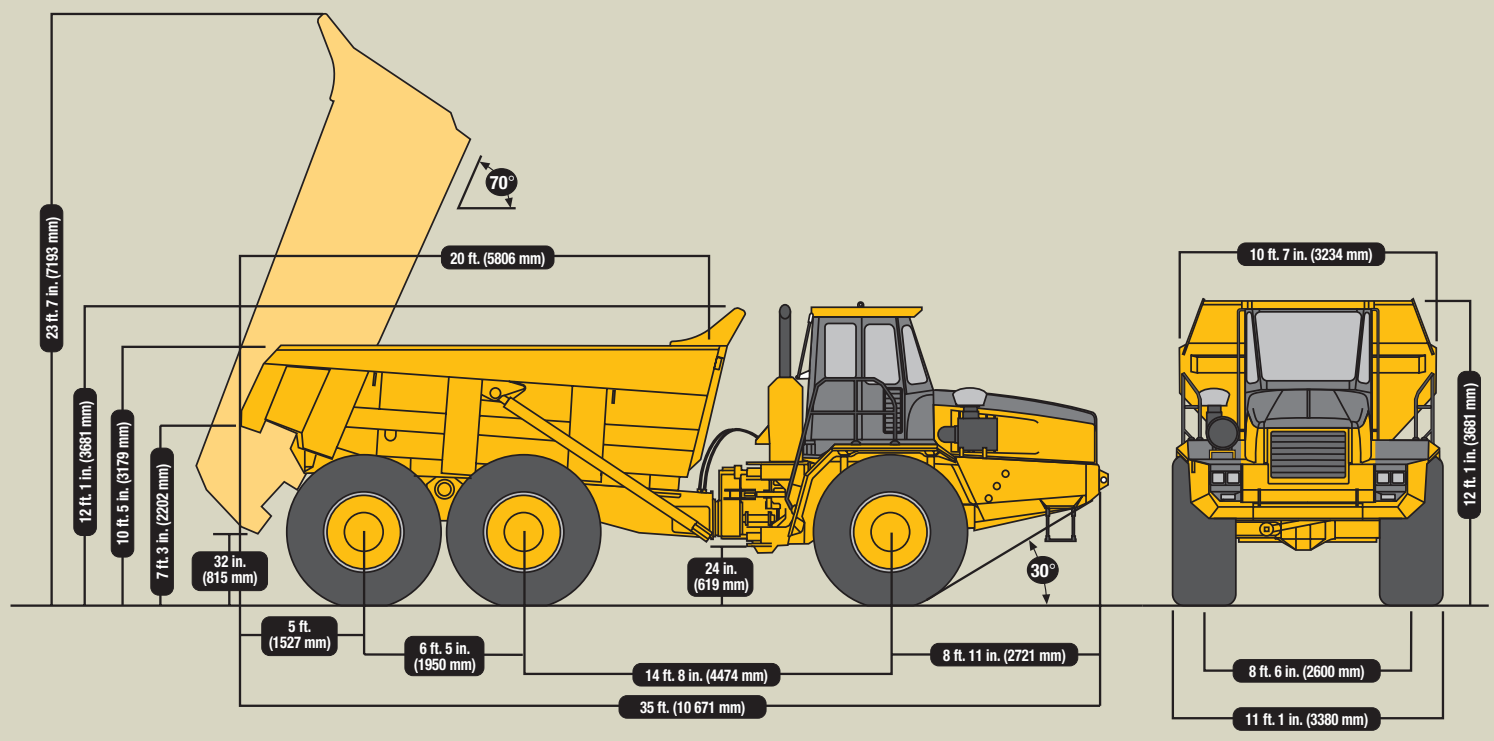
## Operating Weights

Empty		Loaded	
Front.....	31,284 lb. (14 190 kg)	Front .....	45,702 lb. (20 730 kg)
Middle .....	16,050 lb. (7280 kg)	Middle .....	48,965 lb. (22 210 kg)
Rear.....	15,388 lb. (6980 kg)	Rear .....	48,524 lb. (22 010 kg)
Total .....	62,722 lb. (28 450 kg)	Total .....	143,190 lb. (64 950 kg)

## SAE Turning Radius Dimensions

Inside turning circle radius.....	16 ft. 4 in. (4987 mm)	Outside turning circle radius.....	30 ft. 9 in. (9208 mm)
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TRIM HERE FOR GATEFOLD



## Additional Equipment

**Key:** ● Standard equipment ▲ Optional or special equipment

See your John Deere dealer for further information.

### Engine

- DaimlerChrysler OM442LA – V8, 410 SAE net hp (306 kW)
- Crankshaft-driven fan
- Electric start aid
- Integral engine valve brake
- Turbocharged and aftercooled

### Power Train

- Automatic exhaust brake
- Automatic planetary transmission – hydrodynamic torque converter with lock-up
- Automatic transmission retarder
- Computer controlled for adaptive shifts
- Control traction differentials on all drive axles
- Dual-circuit, air-over-hydraulic, dry-disc brakes on all six wheels
- High- and low-range gear selection
- Interaxle differential splits torque – 28% to front, 72% to rear
- Lockable proportion differential transfer box
- Push-button drive – neutral/reverse controls
- Rocker switch range holds to prevent gear hunting

### Tipping Body

- 70-degree tip angle
- Body ducted for heating
- ▲ Mechanical/automatic tailgate
- ▲ Hydraulic/automatic tailgate
- Single-stage cylinders
- ▲ Body heater exhaust connection kit

### Tipping Body (continued)

- ▲ Body liner (3/8 in. [10 mm])
- ▲ Body liner (5/8 in. [16 mm])

### Hydraulic System

- Closed-center, load-sensing system

### Electrical System

- 24-volt system
- 55-amp alternator
- Twin maintenance-free batteries

### Operator Station

- ROPS cab – conforms to SAE J1040/ISO 3471/1
- FOPS cab – conforms to SAE J231/ISO 3449
- Air conditioner
- Air-suspension seat
- Compact sloped hood
- Full rearview mirror package
- Heater
- Hydromechanically articulated steering with two double-acting hydraulic cylinders
- Left and right cab-entry doors
- Machine systems condition gauges:
  - Engine coolant temperature
  - Engine oil pressure
  - Fuel level
  - Hourmeter
  - Hydraulic tank pressure
  - System air pressure
  - Transmission oil temperature
- Monitor system with visual and/or audible warnings:
  - Battery charge indicator
  - Body-raised indicator

### Operator Station (continued)

- Brake overstroke indicator
- Cold-start indicator
- Do Not Shift indicator
- Engine coolant temperature indicator with audible alarm
- Engine oil pressure indicator with audible alarm
- Engine over-speed indicator with audible alarm
- High-beam indicator
- Interaxle lock indicator
- Low engine coolant level indicator with audible alarm
- Low-range indicator
- Park brake indicator
- Secondary steering indicator
- Transmission oil pressure indicator with audible alarm
- Transmission oil temperature indicator
- Turn signals
- Seat belt with retractors
- Trainer's seat
- Windshield washer and wiper

### Overall Vehicle

- 29.5R25 radial, earthmover tires
- Center-mounted cab
- High-density polyethylene bearing in oscillation joint
- Independent front and rear chassis
- Leading A frame supported on oil/nitrogen suspension struts
- Mud covers (brake calipers)
- Tri-link rear suspension with 18% of travel

## Control Owning and Operating Costs

Total Repair Cost Management (TRCM) is part of John Deere's proactive, fix-before-fail strategy on machine maintenance that will help control costs, increase profits, and reduce stress. Included in this comprehensive lineup of ongoing programs and services are:

**OilScan® Plus program** – tells you what's going on inside *all* of your machine's major components so you'll know if there's a problem *before* you see a decline in performance. OilScan Plus oil analysis is included in most SECURE®-Extended warranty and preventive-maintenance agreements.

**Component life-cycle data** – gives you vital information on the projected life span of components and lets you make informed decisions on machine maintenance by telling you approximately how many hours of use you can expect from an engine, transmission, or hydraulic pump. This information can be used to preempt catastrophic downtime by servicing major components at about 80 percent of their life cycle.

**Preventive Maintenance (PM) agreements** – give you a fixed cost for maintaining a machine for a given period of time. They also help you avoid downtime by

ensuring that critical maintenance work gets done right and on schedule. On-site preventive maintenance service performed where and when you need it helps protect you from the expense of catastrophic failures and lets you avoid waste-disposal hassles.

**SECURE-Extended warranty** – gives you a fixed cost for machine repairs for a given period of time so you can effectively manage costs. Whether you work in a severe-service setting or just want to spread the risk of doing business, this is a great way to custom-fit coverage for your operation. And a SECURE-Extended contract also travels well because it's backed by John Deere and is honored by *all* Deere construction dealers.

**Customer Support Advisors (CSAs)** – Deere believes the CSA program lends a *personal* quality to Total Repair Cost Management. Certified CSAs have the knowledge and skills for helping make important decisions on machine maintenance and repair. Their mission is to help you implement a plan that's right for *your* business and take the burden of machine maintenance off your shoulders.



Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1349 and DIN 70 020, using No. 2-D fuel at 35 API gravity. Gross power is without cooling fan.

Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE standards. Except where otherwise noted, these specifications are based on a unit with ROPS cab; 29.5R25, radial earthmover tires; full fuel tank; 175-lb. (79 kg) operator; and standard equipment. Capacity and loaded weights are based on 2,800-lb./cu. yd. (1660 kg/m<sup>3</sup>) material.

