

# WHEEL LOADER 966H

## I. GENERAL:

This standard is intended to provide specifications for the procurement of Caterpillar Model 966H Wheel Loaders that meet specific area operational requirements for JEA / SJRPP. This type of Wheel Loader shall be utilized for bulk material handling to support operational needs for the solid fuel units or any other earth moving type work in or around the plants.

## II. DESCRIPTIONS FOR CATERPILLAR MODEL 966H WHEEL LOADER:

The following shall be provided:

### II.1. ENGINE::

The Cat C11 ACERT engine shall meet or exceed all EPA Tier 3/EU Stage IIIa emission specifications.

II.1.1. Engine Model:..... Cat® C11 ACERT™

II.1.2. Gross Power - SAE J1995:..... 286 hp

II.1.3. Net Power - ISO 9249:..... 262 hp

II.1.4. Net Power - SAE J1349:..... 259 hp

II.1.5. Net Power - 80/1269/EEC: ..... 262 hp

II.1.6. Peak Torque (Net) @ 1,400 RPM:..... 896 ft-lb

II.1.7. Bore: ..... 5.12 in

II.1.8. Stroke: ..... 5.51 in

II.1.9. Displacement: ..... 677 in<sup>3</sup>

- Caterpillar engine with ACERT™ Technology - EPA Tier III, EU Stage III Compliant
- These ratings apply at 1,800 rpm when tested under the specified standard conditions.
- Rating for net power shall be based on power available when the engine is equipped with alternator, air cleaner, muffler and on-demand hydraulic fan drive at maximum fan speed.

### II.2. WEIGHTS:

II.2.1. Operating Weight:..... 52,254 lb

- As supplied with a 5.5 yd<sup>3</sup> general purpose bucket with bolt on cutting edge.

### II.3. BUCKETS

II.3.1. Bucket Capacities: ..... 4.5 – 5.5 yd<sup>3</sup>

II.3.2. Max Bucket Capacity: ..... 5.5 yd<sup>3</sup>

### II.4. OPERATING SPECIFICATIONS:

II.4.1. Breakout Force: ..... 42,300 lb

II.4.2. Static Tipping Load, Full Turn..... 34,120 lb

- For 4.5 yd<sup>3</sup> general purpose bucket with BOCE.

- II.5. TRANSMISSION CAPABILITIES FOR 966H WHEEL LOADER SHALL MEET THE FOLLOWOING:
  - II.5.1. Forward 1:..... 4.2 mph
  - II.5.2. Forward 2:..... 7.8 mph
  - II.5.3. Forward 3:..... 13.7 mph
  - II.5.4. Forward 4..... 23.2 mph
  - II.5.5. Reverse 1:..... 4.6 mph
  - II.5.6. Reverse 2:..... 8.6 mph
  - II.5.7. Reverse 3:..... 15.1 mph
  - II.5.8. Reverse 4:..... 23.2 mph
    - Maximum travel speeds 23.5 R 25 tires.
- II.6. HYDRAULIC SYSTEM FOR 966H WHEEL LOADER SHALL MEET THE FOLLOWING:
  - II.6.1. Bucket/Work Tool System – Pump - ... 80.6 gal/min Output
  - II.6.2. Steering System Pump Type: ..... Piston
  - II.6.3. Hydraulic Cycle Time – Raise: ..... 5.9 Seconds
  - II.6.4. Hydraulic Cycle Time – Dump:..... 1.6 Seconds
  - II.6.5. Hydraulic Cycle Time - Lower, ..... 2.4 Seconds Empty, Float Down
  - II.6.6. Hydraulic Cycle Time – Total: ..... 9.9 Seconds
    - Implement System (Standard), Piston Pump - Rated at 2,100 rpm and 1,000 psi.
- II.7. BRAKE SYSTEM FOR 966H WHEEL LOADER SHALL MEET THE FOLLOWING:
  - Brakes: Break system shall meet OSHA, SAE J1473 OCT90 and ISO 3450-1985 standards.
- II.8. AXLES FOR 966H WHEEL LOADER SHALL MEET THE FOLLOWING:
  - II.8.1. Front: Axle:..... Fixed
  - II.8.2. Rear Axle: ..... Oscillating  $\pm 13^\circ$
  - II.8.3. Maximum Single-Wheel Rise and Fall: 19.88.5 in
- II.9. CAB FOR 966H WHEEL LOADER SHALL MEET THE FOLLOWING:
  - II.9.1. Cab for 966H Wheel Loader shall be constructed with:
    - Integrated Rollover Protective Structure (ROPS) which meets SAE J1040 APR88 and ISO 3471:1994 criteria.
    - Falling Objects Protective Structure (FOPS) shall meets SAE J231 JAN81 and ISO 3449:1992 Level II criteria.
    - Operator sound pressure level measured according to the procedures specified in ISO 6394:1998 at 72 dB(A) when properly installed, maintained and tested with the doors and windows closed.
    - The sound pressure level shall be 111 dB(A) when measured according to the static test procedure and conditions specified in ISO 6395:1998 for a standard machine configuration.

- II.10. SERVICE REFILL CAPACITIES:
  - II.10.1. Fuel Tank – Standard: ..... 100.4 gal
  - II.10.2. Engine Cooling System: ..... 10.3 gal
  - II.10.3. Engine Crankcase: ..... 9.25 gal
  - II.10.4. Transmission: ..... 11.62 gal
  - II.10.5. Front Differentials and Final Drives..... 16.9 gal
  - II.10.6. Rear Differentials and Final Drives ..... 16.9 gal
  - II.10.7. Hydraulic Oil Tank: ..... 29 gal

**III. STANDARD EQUIPMENT:**

The following standard equipment shall be provided for the 966H Wheel Loader:

- III.1. ELECTRICAL:
  - III.1.1. Alarm, back-up
  - III.1.2. Alternator, 80-amp brushless
  - III.1.3. Batteries, Maintenance free (2) 1400 CCA
  - III.1.4. Ignition key; start/stop switch
  - III.1.5. Lighting system, halogen (6 total)
  - III.1.6. Main disconnect switch
  - III.1.7. Receptacle, starting, 24-volt
  - III.1.8. Starter, electric, heavy-duty
  - III.1.9. Starting and charging system (24-volt)
- III.2. OPERATOR ENVIRONMENT
  - III.2.1. Air conditioner, heater and defroster
  - III.2.2. Bucket/work tool function lockout
  - III.2.3. Cab, pressurized and sound-suppressed ROPS/FOPS
    - III.2.3.1. Radio-ready (entertainment) includes antenna, speakers and converter (12-volt, 10-amp)
  - III.2.4. Cigar lighter and ashtray (12-volt)
  - III.2.5. Coat hook (2) with straps
  - III.2.6. Computerized monitoring system
    - III.2.6.1. Instrumentation, gauges:
      - III.2.6.1.1. Digital gear range indicator
      - III.2.6.1.2. Engine coolant temperature
      - III.2.6.1.3. Fuel level
      - III.2.6.1.4. Hydraulic oil temperature
      - III.2.6.1.5. Speedometer/tachometer
      - III.2.6.1.6. Transmission oil temperature
    - III.2.6.2. Instrumentation, warning indicators:
      - III.2.6.2.1. Axle oil temperature
      - III.2.6.2.2. Electrical, alternator output
      - III.2.6.2.3. Engine air filter restriction

- III.2.6.2.4. Engine inlet manifold temperature
- III.2.6.2.5. Engine oil pressure
- III.2.6.2.6. Fuel level
- III.2.6.2.7. Fuel pressure, hi/low
- III.2.6.2.8. Hydraulic filter bypass
- III.2.6.2.9. Hydraulic oil level
- III.2.6.2.10. Parking brake
- III.2.6.2.11. Primary steering oil pressure
- III.2.6.2.12. Service brake oil pressure
- III.2.6.2.13. Transmission filter bypass
- III.2.7. Controls, electrohydraulic, lift and tilt function
- III.2.8. Horn, electric (steering wheel/console)
- III.2.9. Light, dome (cab)
- III.2.10. Lunchbox, beverage holders and personal tray
- III.2.11. Mirror, rearview (internally mounted)
- III.2.12. Seat, Cat Comfort (cloth) with air suspension
- III.2.13. Seat belt, retractable, 51 mm (2") wide
- III.2.14. Steering column, adjustable angle (SW-CCS) and length (CCS)
- III.2.15. Wet-Arm wipers and washers, front and rear Intermittent front wipers
- III.2.16. Window, sliding (left and right side)
- III.3. POWER TRAIN
  - III.3.1. Brakes, full hydraulic enclosed wet-disc with Integrated
  - III.3.2. Braking System (IBS) and brake wear indicator
  - III.3.3. Engine, Cat C11 with ACERT™ Technology and ATAAC
  - III.3.4. Fan, radiator, electronically controlled, hydraulically driven, temperature sensing, on demand
  - III.3.5. Filters, fuel, primary/secondary
  - III.3.6. Filters, engine air, primary/secondary
  - III.3.7. Fuel priming pump (electric)
  - III.3.8. Muffler, sound suppressed
  - III.3.9. Radiator, unit core
  - III.3.10. Starting aid, ether (ready)
  - III.3.11. Switch, transmission neutralizer lockout
  - III.3.12. Torque converter, free wheel stator
  - III.3.13. Transmission, automatic, planetary power shift (4F/4R)
  - III.3.14. Variable Shift Control (VSC)
- III.4. OTHER
  - III.4.1. Automatic bucket positioner
  - III.4.2. Counterweight
  - III.4.3. Couplings, Caterpillar O-ring face seal
  - III.4.4. Doors, service access (locking)

- III.4.5. Ecology drains, engine, transmission and hydraulics
- III.4.6. Fenders, steel (front and rear)
- III.4.7. Guard, airborne debris
- III.4.8. Hitch, drawbar with pin
- III.4.9. Hood, non-metallic, power tilting
- III.4.10. Hoses, Caterpillar XT™
- III.4.11. Hydraulic oil cooler
- III.4.12. Kickout, lift and tilt, automatic (in-cab adjustable)
- III.4.13. Linkage, Z-bar, cast crosstube/tilt lever
- III.4.14. Oil sampling valves
- III.4.15. Product Link ready
- III.4.16. Remote diagnostic pressure taps
- III.4.17. Service center, electrical and hydraulic
- III.4.18. Sight gauges:
  - III.4.18.1. Engine coolant
  - III.4.18.2. Hydraulic oil
  - III.4.18.3. Transmission oil level
- III.4.19. Steering, load sensing
- III.4.20. Vandalism protection caplocks
- III.5. TIRES, RIMS, WHEELS
  - III.5.1. Wheel Loader shall be supplied with 26.5 R25 XHA MX L3 Tires, rims and wheels as needed
- III.6. ANTIFREEZE
  - III.6.1. Premixed 50% concentration of Extended Life Coolant with freeze protection to -34°C (-29°F)

**IV. OPTIONAL EQUIPMRNT:**

- IV.1. Autolube – Lincoln Lube System
- IV.2. Bucket – GP 4.5 CYDS (5.5 CYD with BOCE)
- IV.3. Bucket Ground Engaging Tools (GET) Bolt-on Cutting edge
- IV.4. Cooling, high-ambient, 50° C (122° F)
- IV.5. Drain, axle ecology
- IV.6. Fenders, roading
- IV.7. Glass, cab, rubber-mounted
- IV.8. Guard, power train
- IV.9. Hydraulic arrangement, three-valve
- IV.10. Joystick control, two- or three-valve
- IV.11. Lights, directional
- IV.12. Lights, high intensity discharge (HID)
- IV.13. Lights, roading
- IV.14. Lights, work, cab-mounted

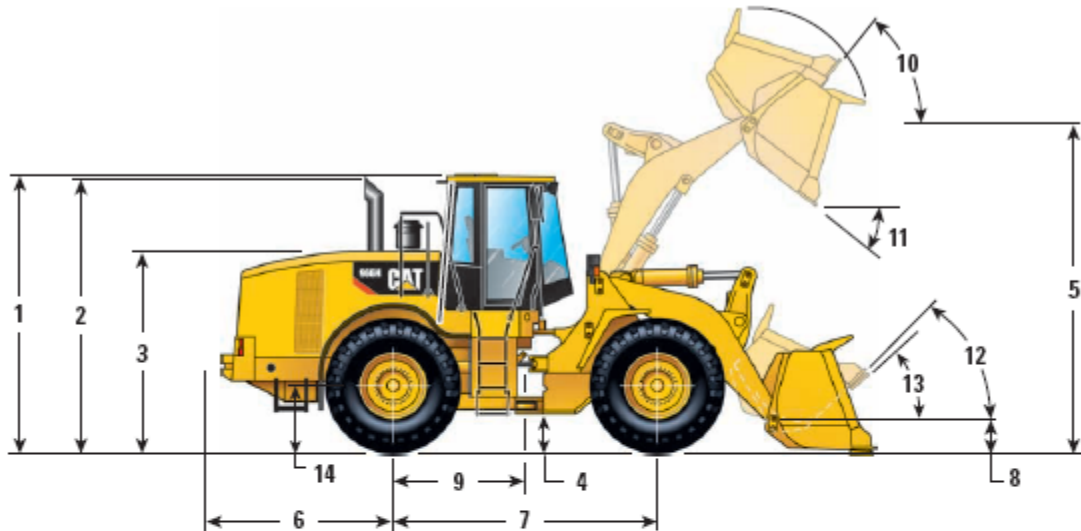
- IV.15. Mirrors, external
- IV.16. Precleaner, turbine
- IV.17. Product Link
- IV.18. Remote pressure taps, transmission
- IV.19. Ride Control System, two-valve
- IV.20. Seatbelt, 76 mm (3") wide
- IV.21. Steering, Command Control System
- IV.22. Switch, lift lever FNR (steering wheel machines)
- IV.23. Sun visor, front

**V. TIRES:**

26.5R25 XHA MX L3

**VI. DIMENSIONS:**

All dimensions are approximate.



1	Height to top of ROPS	11'10"
2	Height to top of exhaust pipe	11'8"
3	Height to top of hood	8'9"
4	Ground clearance with 26.5R25 L-4 Firestone (see tire chart for other tires)	1'8"
5	B-Pin height	13'10"
6	Center line of rear axle to edge of counterweight	8'1"
7	Wheelbase	11'4"
8	B-Pin height @ carry	1'8"
9	Center line of rear axle to hitch	5'8"
10	Rack back @ maximum lift	60.8
11	Dump angle @ maximum lift	45
12	Rack back @ carry	47.4
13	Rack back @ ground	41.8
14	Height to center line of axle	2'8"

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