

# 4300 QUANTUM LOGMASTER SPECIFICATIONS

## ENGINE

Cummins M11-C265 turbocharged, water cooled, 4-cycle diesel, 6 cylinder, 661 CID (10 800 cc), 4.92" (125 mm) bore X 5.79" (147 mm) stroke.

SAE net horsepower ..... 240 HP (186 kW) @ 1,700 rpm  
Maximum torque ..... 900 ft.-lbs. (124.5 kg-m or 1 178 N-m) @ 1,300 rpm  
Starter ..... Electric, 24V, 4.5 kW  
Alternator ..... 70 amp  
Air cleaner ..... Double element  
Governor ..... Variable speed, mechanical

## HYDRAULIC SYSTEM

Two variable displacement axial piston pumps, one gear pump for pilot controls, and one gear pump for grapple rotation with Link-Belt Intelligent Quantum (IQ) Control. Link-Belt IQ Control includes: four selectable working modes, free swing, one-touch decelerator, auto idling system, power up mode, boom priority mode, selectable cushion attachment control, and three safety lockout switches including gate lock.

### Hydraulic Pumps

Two variable volume piston pumps provide power for attachment, swing and travel.

Maximum flow ..... 2 x 71 gpm (2 x 269 l/min)  
Pilot pump max. flow ..... 7.4 gpm (27.9 l/min)  
Rotate pump max. flow ..... 10 gpm (37.9 l/min)

### Relief Valve Settings

Boom up/arm/heel/travel ..... 4,620 psi (325 kg/cm<sup>2</sup>)  
In power up mode ..... 5,050 psi (355 kg/cm<sup>2</sup>)  
Swing circuit ..... 4,050 psi (285 kg/cm<sup>2</sup>)  
Boom down circuit ..... 3,555 psi (250 kg/cm<sup>2</sup>)

**Hydraulic Cylinders** (Pierce) – number of cylinders – bore x rod x stroke  
Boom ..... 2 – 7.0" x 5.0" x 52" (178 mm x 127 mm x 1 321 mm)  
Arm ..... 1 – 7.75" x 5.0" x 65" (197 mm x 127 mm x 1 651 mm)  
Heel ..... 1 – 6.0" x 3.75" x 44.75" (152 mm x 95 mm x 1 137 mm)

### Oil Filtration

Nephron filter ..... 1 micron  
Return, pilot, drain filter ..... 10 micron  
Suction filter ..... 105 micron

**Control Valve** One 4-spool valve and one 5-spool valve.

## CAB AND CONTROLS

Cab mounted on 6 fluid filled mountings. Features include a safety glass front window and LEXAN® MARGARD™ rear and side windows, reclining/sliding cloth upholstered suspension seat with headrest and armrests, heater, circulating fan, AM/FM radio, cigarette lighter, pop-up skylight window, and intermittent wiper with washer. Front window slides upward for storage and the lower front window is removable. Control levers are located in 4-position tilting control consoles. Reliable soft-touch switches. Easy-to-read illuminated LCD service monitor keeps operator in touch with critical machine functions.

## SWING

Planetary reduction powered by axial piston motor. Internal ring gear with grease cavity for swing pinion. High capacity swing bearing is single-row, four-point contact ball bearing. Swing cushion valve and dual stage relief valves for smooth swing deceleration and stops. Mechanical disc swing brake.

Swing speed ..... 0 – 10.5 rpm  
Swing torque ..... 73,700 ft.-lbs. (10 193 kg-m)

## UNDERCARRIAGE

X-style, high-wide carbody is integrally welded for strength and durability. Grease cylinder track adjusters with shock absorbing springs. Heavy duty undercarriage with sealed track, lubricated rollers and idlers. Double grouser track shoes.

Carrier rollers ..... 2 per side  
Track rollers ..... 8 per side  
Shoes ..... 49 per side  
Ground pressure w/27.5" (700 mm) double grouser track shoes .....  
(less grapple) ..... 9.4 psi (.66 kg/cm<sup>2</sup>)

## TRAVEL SYSTEM

Three-speed independent hydrostatic travel with compact axial piston motors for increased performance. Hydraulic motor powered output shaft coupled to a planetary reduction unit and track sprocket. All hydraulic components mounted within the width of side frame. Travel speeds selected by floor mounted foot switch.

**Automatic Downshift:** When operating in difficult travel conditions or on slopes, travel motor automatically downshifts from high speed to mid-range speed for increased tractive effort. Machine will automatically return to high speed after traveling out of difficult terrain.

**Single Pedal Travel:** Engage both tracks simultaneously.

Max. travel speed ..... 1.2/1.8/3.1 mph (1.9/2.9/5.0 km/h)  
Tractive effort ..... 66,650 lbs. (30 230 kg)  
Gradeability ..... 70%

Spring applied, hydraulically released disc parking brake built into each motor. Each travel motor equipped with counterbalance valve to prevent over-speeding down an incline and dual stage reliefs for smooth starts and stops.

## LUBRICANT & COOLANT CAPACITY

Hydraulic tank ..... 40.2 gal. (152 liters)  
Hydraulic system ..... 84.5 gal. (320 liters)  
Final drive (per side) ..... 2.2 gal. (8.5 liters)  
Swing drive ..... 3.4 gal. (12.5 liters)  
Engine ..... 9 gal. (34 liters)  
Fuel tank ..... 153.3 gal. (580 liters)  
Cooling system ..... 15 gal. (56.8 liters)

## ATTACHMENT OPTIONS

- Pierce or Young 42' 0" (12.80 m) log loading attachment with heel
- Pierce or Young 40' 0" (12.19 m) log loading attachment with heel
- Excavator front

## DIMENSIONS

Tail swing ..... 11' 0" (3.35 m)  
Ground clearance ..... 27.8" (.71 m)  
Track length ..... 16' 8" (5.07 m)  
Overall width w/27.5" (700 mm) shoes ..... 11' 11" (3.64 m)

## OPERATING WEIGHT

Working weight with 27.5" (700 mm) double grouser track shoes, Pierce 42' (12.80 m) attachment and 2,250 lb. (1 020 kg) grapple .. 92,300 lbs. (41 867 kg)

## STANDARD EQUIPMENT

- Cummins M11-C265 diesel engine
- 70 amp alternator
- Double element air filter
- 24-volt starting system, battery lighting system, sealed heavy duty electrical connectors
- Ether starting aid
- Intelligent Quantum (IQ) Control with manual backup system
- Self-diagnostic system
- Nephron filtration system
- Swing-out oil cooler
- Four selectable working modes
- One-touch decelerator
- Auto idling system
- Auto engine warm up
- Power up mode
- Cushion attachment control
- Boom and arm holding valves
- Free swing control
- 3-speed hydrostatic travel
- Travel alarm
- Boom priority mode
- Single pedal travel
- Sliding/reclining, suspension cloth upholstered KAB515 seat with 4-position tilting consoles and sliding platform
- Illuminated LCD service monitor
- Heater, fan, seat belt, horn, dome light, AM/FM radio, digital clock, floor mat, cigarette lighter
- Safety glass front window with automatic lock and intermittent windshield wiper and washer, large LEXAN® rear/side windows
- Vandalism locks
- Hand grab rails both sides
- Raised carrier rollers
- High capacity turntable bearing
- Heavy duty, high wide lower
- 27.5" (700 mm) double grouser track shoes
- 18,500 lbs. (8 392 kg) counterweight
- Quick disconnects in hydraulic system for easy pressure checking

# 4300 QUANTUM LOGMASTER ADDED VALUE FEATURES

## IQ Hydraulic Control System

- On-board self-diagnostic system allows service personnel to quickly pinpoint problems.
- 4 working modes enable the operator to program the machine's output to the job application.
- Auto warm-up allows engine speed to automatically increase gradually until normal operating conditions are reached.
- Free swing for precise control and smooth stops when swinging a load.
- Cushion attachment control reduces shock and vibration.
- Power Up Mode gives hydraulic system a 9% power boost for 8 seconds at the touch of a button.
- Selectable Boom Priority Mode increases boomhoist speed relative to swing, maximizing efficiency when loading, sorting, etc. within a 90° work area.
- One-touch/auto idling brings the engine down to idle for optimum fuel savings.

## Heavy Duty High-Wide Lower

- Raised heavy duty carrier rollers reduce mud/debris collection on side frames.

*Raised carrier rollers*



- High ground clearance and wide stance for greater mobility and stability.

- Track rollers filled with synthetic oil for long term reliability.
- Single pedal travel keeps the machine in line when traveling and provides safety and ease in loading/unloading the machine for transport.

## Operator's Cab

- The new style cab, designed with the operator in mind, is mounted to the frame on six fluid mountings for minimal vibration. Features include cloth upholstered suspension seat with armrests, heater, and intermittent windshield wiper with washer.
- Soft-touch switches are dust and moisture resistant for long term reliability.



- LCD monitor displays several messages including work modes,

boom priority, free swing, engine idling, auto warm up...and several other audio/visual caution and warning messages which keep the operator in touch with critical machine functions.

- Low effort, pilot operated controllers.
- Maximum comfort is obtained through a multiple adjustable seat and control consoles.

## Upper

- High capacity turntable bearing.
- Extra counterweight.

## Nephron Filtration System

- The Nephron filter eliminates contaminants of 1 micron or more in size. This significantly reduces hydraulic system breakdown and maintenance costs under normal usage. Less wear and tear on the hydraulic components means you get more years of reliable performance from your Quantum Logmaster.

## Swing-Out Oil Cooler

- A standard swing-out oil cooler provides exceptional wide opening access for easy, thorough cleaning of the radiator.



## Conversion Packages

- Pierce or Young includes log loading attachment with heel, 4' 0" (1.22 m) hydraulic tilt cab riser, heavy duty upper and lower undercovers, and heavy duty guarding.



*Cab completely tilts forward for ease of transportation and servicing. Hydraulically controlled from side of upper.*

Also available from your Link-Belt dealer:

### In U.S.

- Air conditioning
- Rear entry cab

### In Canada

- Air conditioning
- Rear entry cab
- Cylinder guards
- Additional fuel tank
- Butt & top grapple

**LBX Company LLC** Lexington, Kentucky

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