

# 6000 QUANTUM SCRAPMASTER SPECIFICATIONS

## ENGINE

Cummins M1C320-1.5c 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 ..... 300 HP (224 kW) @ 2,000 rpm  
Maximum torque ..... 910 ft.-lbs. (126 kg-m or 1 234 N-m) @ 1,300 rpm  
Starter ..... Electric, 24V  
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. Grapple rotation and high pressure grapple hydraulic system. Remote mounted high ambient/severe duty oil cooler.

### Hydraulic Pumps

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

Maximum flow ..... 2 x 90 gpm (2 x 340 l/min)  
Pilot pump max. flow ..... 8.2 gpm (31.0 l/min)  
Rotator pump max. flow ..... 6.0 gpm (22.7 l/min)

### Relief Valve Settings

Boom up/arm/jib/travel ..... 4,620 psi (325 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

(Young 3-piece) – number of cylinders – bore x rod x stroke

Boom ..... 2 – 7.5" x 4.5" x 57.0" (190 mm x 114 mm x 1 448 mm)  
Arm ..... 1 – 9.0" x 5.0" x 62.0" (229 mm x 127 mm x 1 575 mm)  
Jib ..... 1 – 7.0" x 4.5" x 40.0" (178 mm x 114 mm x 1 016 mm)

### Oil Filtration

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

**Control Valve** One 9-spool valve with auxiliary spool.

## 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, oscillating 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. Analog gauge/warning light service monitor and voltmeter/ammeter keep operator in touch with critical machine functions.

## SWING

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

Swing speed ..... 0 – 8.7 rpm  
Tail swing ..... 12' 0" (3.66 m)  
Swing torque ..... 102,821 ft.-lbs. (14 220 kg-m)

## UNDERCARRIAGE

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

Carrier rollers ..... 2 per side  
Track rollers ..... 9 per side  
Shoes ..... 51 per side  
Shoe width ..... 30" (750 mm)  
Ground pressure (w/o grapple or magnet) ..... 10.8 psi (.76 kg/cm<sup>2</sup>)

Alternating inner and outer flanged rollers are used to assure proper track rail to roller engagement.

## 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 ..... 1.3/1.9/3.1 mph (2.1/3.1/5.0 km/h)  
Tractive effort ..... 76,990 lbs. (34 920 kg)  
Gradeability ..... 70%

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

## LUBRICANT & COOLANT CAPACITY

Hydraulic tank ..... 55 gal. (210 liters)  
Hydraulic system ..... 119 gal. (450 liters)  
Final drive (per side) ..... 1.8 gal. (.7 liters)  
Swing drive ..... 5.5 gal. (21 liters)  
Engine ..... 9 gal. (34 liters)  
Fuel tank ..... 172 gal. (650 liters)  
Cooling system ..... 7.2 gal. (27 liters)

## ATTACHMENTS

### Available Attachments

- **Young 3-Piece** – 25' 0" (7.62 m) boom x 15' 0" (4.57 m) arm x 13' 8" (4.17 m) jib ..... Max. reach – 54' 0" (16.46 m)
- **Young 2-Piece** – 30' 6" (9.30 m) boom x 24' 6" (7.47 m) arm ..... Max. reach – 55' 0" (16.76 m)
- **Pierce 3-Piece** – 24' 2" (7.37 m) boom x 16' 6" (5.03 m) arm x 14' 4" (4.37 m) jib ..... Max. reach – 55' 0" (16.76 m)
- **Pierce 2-Piece** – 31' 0" (9.45 m) boom x 24' 2" (7.37 m) arm ..... Max. reach – 55' 0" (16.76 m)

## OPERATING WEIGHT

Working weight with 30" (750 mm) shoes, 6' 0" (1.83 m) riser and 66" (1.68 m) deep field magnet ..... 121,585 lbs. (55 150 kg)

## STANDARD EQUIPMENT

- Cummins M1C320-1.5c diesel
- 70 amp alternator
- Double element air filter
- 24-volt starting system, battery lighting system, sealed heavy duty electrical connectors
- 25 kW belt driven generator including discharge controller
- High pressure grapple hydraulic system
- Nephron filtration system
- Remote mounted oil cooler
- Cushion attachment control
- Boom and arm holding valves
- Quick disconnects in hydraulic system for easy pressure checking
- Free swing control
- 3-speed hydrostatic travel
- Single pedal travel
- Travel alarm
- Analog gauge/warning light service monitor
- Voltmeter and ammeter
- Sliding/reclining, suspension cloth upholstered KAB515 seat with 4-position tilting consoles and sliding platform
- Heater, fan, seat belt, horn, dome light, AM/FM radio, floor mat, cigarette lighter
- Safety glass front window with automatic lock and intermittent windshield wiper and washer, large LEXAN® rear/side windows
- 6' 0" (1.83 m) manual tilt cab riser
- Elevated platform, stairs, safety railing
- Catwalks
- Hand grab rails both sides
- Vandalism locks/guarding
- Upper and lower undercovers
- 10' 4" (3.15 m) gauge by 17' 4" (5.28 m) long lower with 30" (750 mm) 3-bar grouser track shoes
- 27,930 lbs. (12 670 kg) ctwt.
- Young 3-piece attachment with magnet connector link

# 6000 QUANTUM SCRAPMASTER ADDED VALUE FEATURES

**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 with 3-speed fan, and intermittent windshield wiper with washer.



- Super precise joystick style controllers incorporate thumb and trigger switches to control magnet or grapple functions.
- Manual throttle provides reliable engine throttle control.
- Maximum comfort is obtained through a multiple adjustable seat and control consoles.

**Free Swing** The standard free swing feature allows the operator to disengage the swing brake providing precise control and added safety when swinging a load. The swing brake can be engaged to eliminate the upper from coasting when working on a slope. The swing brake automatically applies a few seconds after the control lever is returned to neutral.

**Cushioned Attachment Control** Push-button cushioned attachment control can be selected for the boom and arm hydraulic circuits which incorporate a cushion valve to further reduce shock and vibration.

**Control Panel** Conveniently located in the right side console are ignition switch, service monitor check button, switches for wiper, light, and AM-FM radio. Located in the left side console are swing brake switch, controls on/off switch, hourmeter, ether start button, heater fan control, and magnet/grapple switch.

## Meter Package

Located next to the service monitor, the voltmeter advises operator of generator output while ammeter monitors magnet electrical system. Conveniently placed in left side console, a switch allows operator to easily change controller functions to either grapple or magnet operation.



**Service Monitor** The analog gauge/



warning light service monitor, ideal for heavy duty scrap applications, advises the operator on all critical machine functions at a glance.

**Attachment Flexibility** The Scrapmaster can be equipped with two or three piece attachment configurations. Shears, magnets or grapples can be utilized depending on job application for machine flexibility.

**Single Pedal Travel** A single pedal travel system allows the operator to engage both tracks at the same time using only one pedal. This keeps the machine in line and provides safety and ease in loading/unloading the machine for transport.

**Generator Package** Standard belt driven 25kW generator including automatic discharge magnet controller. Hydraulic drive available.



**Elevated Cab** Operator's cab with guarding is available in 6' 0" (1.83 m), or 8' 0" (2.44 m) elevated heights.

The elevated cab combined with a full view two-piece front window provides optimum operator visibility. All elevated cabs manually tilt for maximum service-ability and



transportability.

Extra-wide catwalks are standard. Hydraulically tilting cabs are available.



**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 Scrapmaster.

**Remote Oil Cooler** A standard remote mounted, severe duty hydraulic oil cooler package cools the hydraulic oil for all-day, efficient operation. This high ambient cooler, driven by a spare hydraulic pump, does not affect other hydraulic functions.



**Undercarriage** The Scrapmaster undercarriage has been designed specifically for the scrap industry.



The extra-wide heavy duty carbody and high capacity turntable bearing provide superior lift capacities and long service life. The compact final drive system provides maximum protection against damage as motors fit within the side frames. For further protection the hydraulic lines to the travel motors are located inside the lower frame and undercarriage guarding is standard. The heavy duty alternating inner and outer flange rollers maintain track alignment and minimize wear. Rollers and idlers are filled with synthetic oil for long term reliability.

**Upper Frame** Specifically designed for rough scrap applications with high strength material and extra reinforcement in high stress areas.