



General Specifications

BOOM

Inverted T-cross section designed for optimum strength to weight ratio; 3, 4 or 5-section telescoping type, extended and retracted proportionally by a double-acting hydraulic cylinder and a cable-crowd system. Fitted with easily replaceable self-lubricating wear pads for smooth operation.

Quick Reeve Boom Point - Fitted with upper and lower high-density nylon load sheaves mounted on heavy duty roller bearings. Removable pin-type rope guards.

Boom Elevation - Double-acting hydraulic cylinder. Working range from 9.5° below horizontal to 80° above.

Load Hook - 5-ton (4,5 mt) capacity hook with heavy-duty swivel and weight is provided for single-line operation.

Jib (Option) - Inverted T-cross section designed for optimum strength to weight ratio. 1-section fixed or 2-section telescopic manually extended. 50-ton models offer offsetting (0°, 15°, 30°) fixed or telescopic jibs with Jib Jack and stow bracket design for one-man operations.

HOIST

Planetary reducer with wet multi-disc spring applied, hydraulically released internal brake and grooved drum; negative draft angle on drum flange and load line tension roller virtually eliminates load line stacking while spooling. High efficiency two-speed hydraulic motor equipped with patented brake valve for precise lowering.

Auxiliary Hoist (Option) - Models 40 Ton and above offer an optional second winch, identical to main winch.

Wire Rope - Type 6 x 25 EIPS IWRC (3:1 SF) or optional Rotation Resistant (5:1 SF). 50 Ton models feature Flex-X 35 rotation resistant type (5:1 SF) as standard.

SWING SYSTEM

Ball-bearing swing circle with external gear.

22 & 30 Ton Models- Continuous rotation, double-reduction planetary gearbox driven by hydraulic motor with spring applied pressure release automatic brake.

40 & 50 Ton models - Continuous rotation, free swing system self centers boom over loads. Double-reduction planetary gearbox driven by hydraulic motor, equipped with dual brake system - spring-applied hydraulically released Parking brake and foot actuated Dynamic Service brake.

ACCUSwing Control allows operator to adjust crane swing speed up to a maximum of 1.5-2 rpm (nominal).

OUTRIGGERS

Out-and-down style outriggers, operated independently for precise leveling. Fully extended, intermediate extension and fully retracted outrigger beam positions. Bubble levels located at operator control station and near outrigger manual controls. Equipped with an alarm to alert personnel when outriggers are in motion.

ROCSolid - 30 ton and above models feature a radio operated handheld controller for outrigger and FBS set-up.

Front Bumper Stabilizer (FBS) - Option offered to simplify proper crane set-up for lifting operations over the front. Consists of a single stabilizer assembly mounted at the front of the truck; FBS is standard on 50 ton models configured with the short subframe. This feature requires truck front frame extensions, consult factory.

MOUNTING

Lower frame is mounted to chassis by threaded rods and clamp plates. No welding, drilling, or bolting to truck frame is required.

Lower Frame – Torsion resistant, rigid 4-plate design with integrated outriggers and pedestal.

Rear Underride Protection - Standard on factory-mounted cranes. Fabricated structure mounted under rear of crane. Complies with Bureau Motor Carrier Safety Standard 393.86.

Boom Rest - Heavy-duty fabrication, removable.

CONTROL SYSTEM

Single operator control station with seat mounted to rotating turret. Four “pilot operated” single-axis crane controls provide precise metering and multifunction capability (boom hoist, swing, telescope & winch). Controls are arranged in accordance with ANSI B30.5 standards.

HDRI - Winch control fitted with thumper; provides feedback to operator when the hoist drum is rotating.

Other controls at the operator station include: engine start/stop, air foot throttle, signal horn, ACCU-Swing regulator, LMI display, load chart, range diagram and view of boom angle indicator.

CAB

Offered as standard equipment on 50 ton models; the operator cab is available as an option on all other S-models. Standard features include a diesel heater, top hatch with electric wiper and locking latches, front electric two-speed wiper, spray washer, fuse block, operator cooling fan, dome light, slider side and rear windows and two position side door with keyed outside latch. Cab may be upgraded to include a hydraulic air conditioning unit in all models.

HYDRAULICS

Hydraulic System – A 3-section pump direct-mounted to power take-off on truck transmission provides fluid power to the winch, boom hoist, telescope, and swing and outrigger circuits. 115 gallon (435-liter) or 150 gallon (568-liter) baffled reservoir includes suction ball valve with strainer and 25-micron filters in the return line. Use of SAE O-ring and O-ring face seal hydraulic fittings throughout system eliminate oil leaks.

Hydraulic Cylinders - All load-holding cylinders are equipped with integral holding valves.

WARNING SYSTEMS

Hydraulic Capacity Alert System (HYCAS) – Model 2277S only; hydraulically senses boom hoist cylinder pressure, audio warning indicates overload condition and overload shutoff feature prevents continuing overload.

Radio Load Cell - Required option on HYCAS machines for jib operations, includes wireless transmitter and receiver/display. Screen displays weight of load on crane hook; intended as an operator aid, helps prevent against jib overloads.

Load Moment Indicator (LMI) - CAN bus system maximizes expansion capabilities. Senses boom hoist cylinder pressure, boom length and boom angle. Audio-visual warning indicates overload conditions and overload shutoff feature prevents continuing overload. Provides operator access to all relative crane configuration and load conditions via text display at the operator station. 50-ton models feature a Graphical LMI display. For added reliability, the LMI system features an internal boom length sensing cable.

Anti-Two-Block System - Audible warning and shut-off functions prevent hook from contacting boom point. Switch is potted to ensure reliability. Wireless and wired systems offered on certain models.

Back-Up Alarm – Supplied on factory-mounted cranes, electronic audible motion alarm is activated when truck transmission is in reverse gear.

MTX-FEATURESS-EN-V1-1103

General Specifications

GENERAL

Electrical – State-of-the-art, weather-resistant components throughout. Hermetically sealed enclosure includes power in relays and circuit status LEDs. Designed to withstand high-pressure washing and varying climates.

Design/Welding – Design conforms to ANSI B30.5. Tested to SAE 1063 and SAE 765.

Welding conforms to AWS D1.1. Tested to SAE 1063 and SAE 765.

Manuals – Operator/maintenance and parts manuals depict recommended crane operation, maintenance procedures and parts listings.

Warranty – 12-month warranty covers parts and labor resulting from defects in material and workmanship.

** In order to ensure continuous improvement, specifications may change without notice.*

Features

- 22 Ton (20 mt) thru 50 Ton (45,4 mt) Capacities
- Proportional Telescopic Booms
- Fixed, Telescopic & Offsetable Jib Options
- Two Speed Grooved Drum Hoist
- Auxiliary Hoist Option (40 ton and above)
- Hoist Drum Rotation Indicator
- Ride Around Operator Control Station
- Pilot Operated Crane Controls
- Cab Option with Diesel Heater
- Crane Cab Air Conditioner Option
- Hydraulic System Pressure Gauge
- Free & Non-Free Swing Systems with ACCUSwing Control
- Continuous Rotation & 360° Work Area
- ROCSolid Radio Remote Outrigger Controls
- Audible Outrigger Motion Alarm
- Load Chart for Multiple Outrigger Spreads
- Load Chart On Tires Over The Rear (50 ton only)
- Overload Protection System with Digital Text or Graphical Display
- Anti-Two-Block System (wireless & wired options)
- Weatherproof Automotive Style Electrical System
- Hydraulic Oil Cooler
- Clamp-On Mounting
- Design Meets ANSI B30.5 Recommendations
- Manitex UPTIME Comprehensive Support



BOOM AND JIB COMBINATIONS

Series 2202

2277S 77' (23,5 m) 3 Section Boom



22101S 101' (30,8 m) 4 Section Boom 29' 1-Section Jib (8,8 m)



Series 3002

30112S 112' (34,1 m) 4 Section Boom 26' - 46' 2-Section Jib (7,9 m - 10 m)



Series 4002

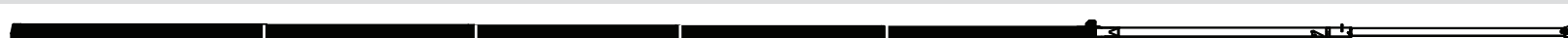
4077S/SHL 77' (23,5 m) 3 Section Boom



40100S/SHL 100' (30,5 m) 4 Section Boom 30' 6" to 55' 2-Section Jib (9,3 m - 16,7 m)



40124S/SHL 124' (37,8 m) 5 Section Boom 30' 6" to 55' 2-Section Jib (9,3 m - 16,7 m)

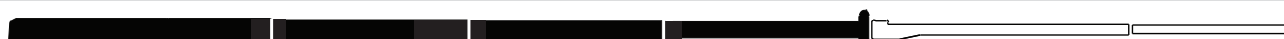


Series 5002

5084S 84' (25,6 m) 3 Section Boom



5096S 96' (29,3 m) 4 Section Boom 32' - 49' 2-Section Jib (9,8 m - 14,9 m)



50110S 110' (33,5 m) 4 Section Boom 32' - 49' 2-Section Jib (9,8 m - 14,9 m)



50128S 128' (39,0 m) 4 Section Boom 32' - 49' 2-Section Jib (9,8 m - 14,9 m)



50155S 155' (47,2 m) 5 Section Boom 39' 1-Section Jib (11,9 m)



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