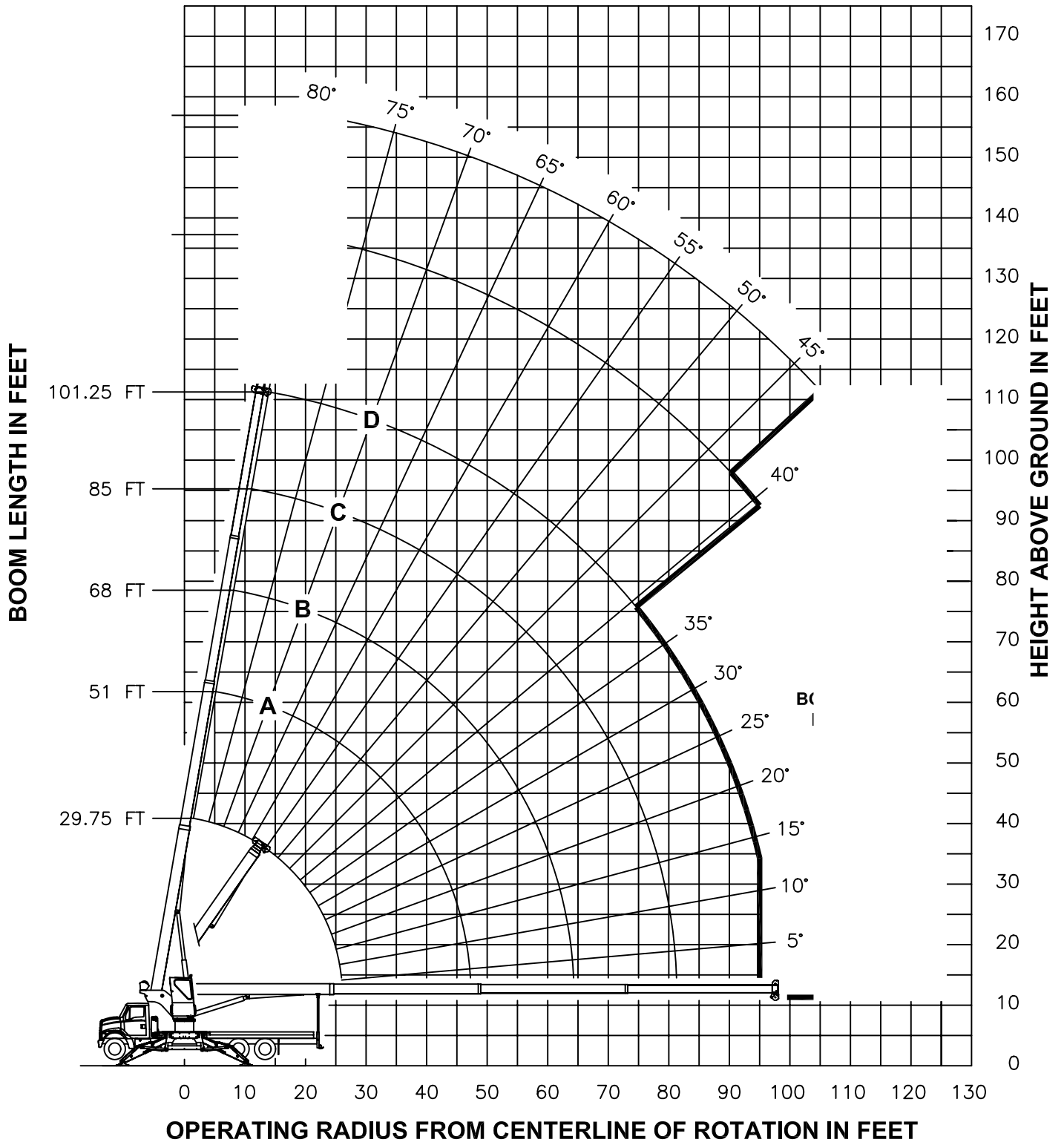
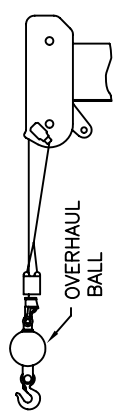
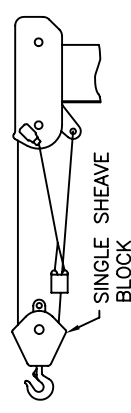
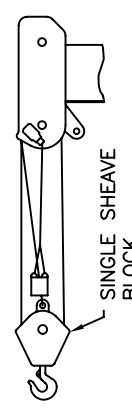
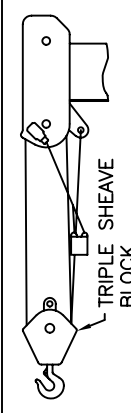
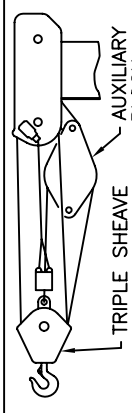
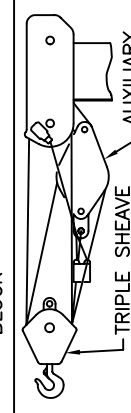
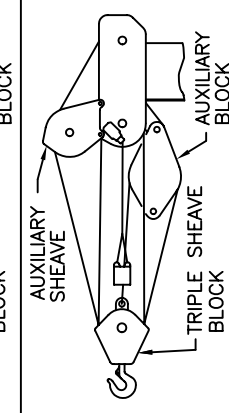
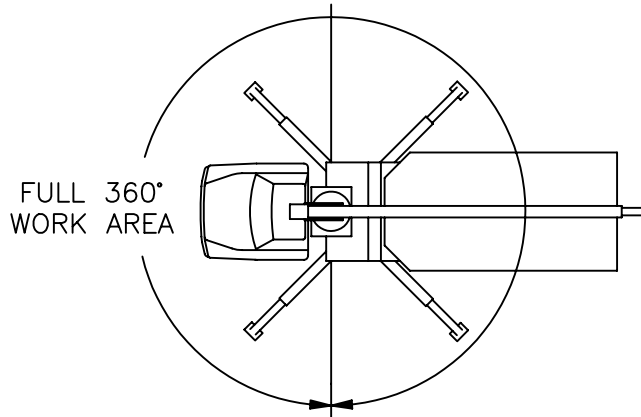


- RANGE DIAGRAM -



ALLOWABLE LINE PULL							<h2 style="margin: 0;">WARNING</h2> <p style="margin: 0;">ANTI-TWO-BLOCK SYSTEM MUST BE IN GOOD OPERATING CONDITION BEFORE OPERATING CRANE.</p> <p style="margin: 0;">REFER TO THE OWNER'S MANUAL.</p> <p style="margin: 0;">KEEP AT LEAST 3 WRAPS OF LOAD LINE ON THE DRUM AT ALL TIMES.</p>
1 PART LINE	2 PART LINE	3 PART LINE	4 PART LINE	5 PART LINE	6 PART LINE	7 PART LINE	
							
8500 LBS	17000 LBS	25500 LBS	34000 LBS	42500 LBS	51000 LBS	60000 LBS	
7400 LBS	14800 LBS	22200 LBS	29600 LBS	37000 LBS	44400 LBS	51800 LBS	
							9/16" 6X25 IWRC (3.5:1 SF) – 29750 LBS MIN BREAKING STRENGTH 9/16" ROT RESISTANT (5.0:1 SF) – 37000 LBS MIN BREAKING STRENGTH

AREA OF OPERATION



DEDUCTIONS FROM RATED LOADS FOR LOAD HANDLING DEVICES SUPPLIED BY MANITEX

- AUXILIARY BLOCK ----- 50 LBS
- AUXILIARY SHEAVE ----- 50 LBS
- OVERHAUL BALL ----- SEE OVERHAUL BALL MANUFACTURER NAMEPLATE
- LOAD BLOCK ----- SEE BLOCK MANUFACTURER NAMEPLATE
- SWING AROUND JIB (STOWED) ----- SEE LOAD CHART

series SX

GENERAL SPECIFICATIONS

BOOM

Inverted T-cross section, 4 or 5-section telescoping type, extended and retracted proportionally by a double-acting hydraulic cylinder and cable-crowd system. Equipped with easily replaceable teflon-plugged nylatron wear pads for smooth operation.

102SX - 4-Section 29' 9" (9,1 m) to 102' (31,1 m). 2-Section, 26' (7,9 m) to 46' (14,0 m) jib.

124SX - 5-section 30'10" (9,4 m) to 123'6" (37,6 m). 1-Section, 31' (9,5 m) jib.

Quick Reeve Boom Point – Five high-density nylon load sheaves mounted on heavy-duty roller bearings. Two removable pin-type rope guards.

Boom Elevation – Double-acting hydraulic cylinder. Working range from 6° below horizontal to 80° above.

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

HOIST

102SX - Maximum theoretical line speed 300 fpm (91 mpm). Maximum theoretical bottom-layer line pull 11,500 lb (5 216 kg). Two-speed planetary reducer with wet multi-disc spring applied, pressure-released internal brake and grooved drum.

Wire Rope - 335' (102,1 m) of 9/16" (14,3 mm) diameter rotation resistant type.



SWING SYSTEM

Ball-bearing swing circle with external gear. Continuous rotation is standard. Manitex ACCUSwing control allows operator to adjust crane swing speed up to a maximum of 2.0 rpm (nominal).

Free Swing - equipped with externally mounted, double-reduction planetary gearbox driven by hydraulic motor. Dual brake system features a spring-applied hydraulically-released Parking Brake and a foot actuated Dynamic Service Brake.

No-Free Swing - equipped with externally mounted, double-reduction planetary gearbox driven by hydraulic motor. Features a wet multi-disc, spring-applied, hydraulically-released brake.

OUTRIGGERS

Patented X-style outrigger provides all around stability to create a true 360° work zone without need of a front mounted stabilizer. Design incorporates double-acting hydraulic cylinders; operated independently for precise leveling. Bubble level located near outrigger controls. Optional ROCSolid handheld radio remote control for outriggers is available for ease of crane set-up.

MOUNTING

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

Rear Underride Protection – Supplied on factory mounted cranes. Fabricated structure mounted at rear of carrier. Complies with Bureau of Motor Carrier Safety Standard 393.86.

Lower Frame – Torsion resistant, rigid welded plate design with integrated pedestal.

Boom Rest – Heavy-duty fabrication. Easily removed to simplify loading and unloading truck deck.

CONTROL SYSTEM

Single operator platform and seat mounted to turret. Four "pilot operated" single-axis crane controls provide precise metering and multifunction capability. Controls are arranged in accordance with ANSI B30.5 standards. The operator station also includes engine start/stop, air foot throttle, signal horn, load moment indicator display, boom angle indicator, load chart and range diagram. Enclosed cab and heater are optional.

HYDRAULICS

Hydraulic System – A 3-section pump direct-mounted to power take-off on truck transmission provides 41.7 gpm (158 lpm) to the hoist, 28 gpm (106 lpm) to the boom hoist, telescope and outrigger circuit, and 12 gpm (45 lpm) to the swing circuit. 100-gallon (379 liter) hydraulic reservoir with strainer and a 10-micron filter in the return line. Ball-type shutoff valve and strainer are provided in suction line. Use of SAE O-ring and face seal O-ring hydraulic fittings throughout system.

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

WARNING SYSTEMS

Load Moment Indicator (LMI) – CAN bus system maximize 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. Operator can access all load conditions via display at the operator station. Internal boom length cable.

Radio Anti-Two-Block System – Audible warning and shutoff functions prevent hook from contacting boom point.

Back-Up Alarm – Electronic audible motion alarm activated when truck transmission is in reverse gear.

GENERAL

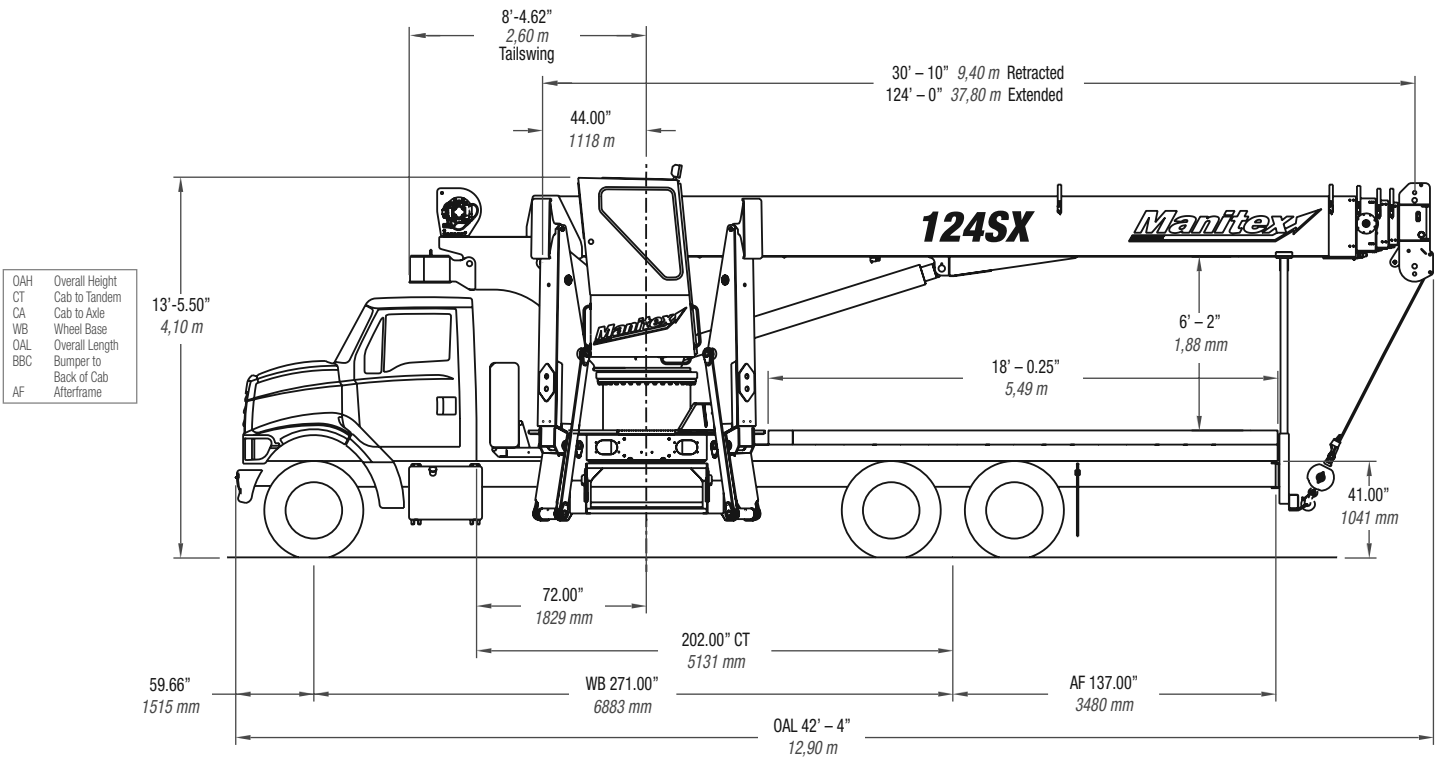
Electrical – State-of-the-art, weather-resistant components throughout. Hermetically sealed power in relays. Enclosure includes power in relays and circuit status LEDs. Designed to withstand high pressure washing and varying climates.

Design/Welding – Design conforms to ANSI B30.5. Welding conforms to AWS D1.1. Tested to SAE 1063 and SAE 765.

Manuals – Operator, service and parts manuals depict correct crane operation, maintenance procedures and parts listing.

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.



- OAH Overall Height
- CT Cab to Tandem
- CA Cab to Axle
- WB Wheel Base
- OAL Overall Length
- BBC Bumper to Back of Cab
- AF Afterframe

CHASSIS DATA	SX Series
Wheelbase (WB)	271" 6 883 mm
Cab to Tandem (CT)	202" 5 131 mm
Cab to End of Frame (EOF)	339" 8 610 mm
Frame Section Modulus	30.0 in³ 110,000 psi 758 422 kPa
Front Axle Gross Weight Rating	20,000 lb 9 072 kg
Rear Axle Gross Weight Rating	40,000 lb 18 144 kg
Minimum Truck Axle Weight - Front**	8,500 lb 3 856 kg
Minimum Truck Axle Weight - Back**	8,545 lb 3 876 kg
Nominal Frame Width	34" 864 mm

**Minimum chassis weight is required to meet 85% stability requirements. Chassis data is general – not for engineering. Some dimensions depend on truck selection.

MAXIMUM TIP HEIGHT	102SX
Configuration	Boom 102' 31,1 m
Extended Boom	110' 6" 33,7 m
Fixed or Retracted Jib	136' 10" 41,7 m
Extended Jib	156' 6" 47,7 m

WEIGHTS	102SX
Cab Alone	575 lb 261 kg
Crane (Without Cab)	28,325 lb 12 848 kg
17' (5,18 m) Flat Bed	1,700 lb 771 kg
26' (7,92 m) Fixed Length Jib	832 lb 378 kg
26' (7,92 m) to 46' (14,02 m) Telescopic Jib	1,226 lb 557 kg
31' (9,45 m) Fixed Length Jib	—

