



STINGER 70100 | Boom Truck Crane

BOOM TRUCK CRANE STINGER 70100



FEATURES

- ▶ 70,000 lb (31 752 kg) maximum lifting capacity
- ▶ 110' (33.53 m) maximum sheave height
- ▶ 163' (49.68 m) maximum sheave height with 30.5-55' (9.30-16.76 m) jib
- ▶ 30.5-100' (9.30-30.48 m) four-section full power fully synchronized boom
- ▶ Exclusive color coded boom and load charts
- ▶ Easy-to-install optional 30.5' (9.30 m) one stage or 30.5-55' (9.30-16.76 m) two stage telescoping jib, man baskets or work platform increase job capacities
- ▶ Electronic Load Moment Indicator and anti-two-block device standard with internal cable
- ▶ Externally located planetary rotation drive for easy accessibility for maintenance
- ▶ 2-speed planetary winch has 12,900 lb (5 851 kg) maximum permissible 1 part line, 45,400 lb (20 593 kg) breaking strength, 196 ft/min (60 m/min) maximum line speed
- ▶ Dual control station with direct mechanically controlled hydraulic system
- ▶ 90 gal (342 L) capacity hydraulic tank

BT MODEL

LOAD RATINGS

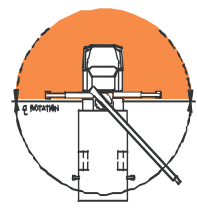


CAUTION Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change.

| BOOM LENGTH | | | | | | | | | | | | | Maximum Load Chart in pounds (lbs) with fully extended outrigger | |
|-----------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|------------------|--|---|
| OPERATING RADIUS (FT) | 30.5 FT | | 44 FT | | 58 FT | | 72 FT | | 86 FT | | 100 FT | | AREA OF OPERATION | DO NOT OPERATE IN SHADED AREA WITHOUT OPTIONAL FRONT STABILIZER |
| | LOADED BOOM ANGLE (DEG) | LOAD RATING (LB) | LOADED BOOM ANGLE (DEG) | LOAD RATING (LB) | LOADED BOOM ANGLE (DEG) | LOAD RATING (LB) | LOADED BOOM ANGLE (DEG) | LOAD RATING (LB) | LOADED BOOM ANGLE (DEG) | LOAD RATING (LB) | LOADED BOOM ANGLE (DEG) | LOAD RATING (LB) | | |
| 5 | 78 | 70,000* | | | | | | | | | | | | |
| 8 | 72 | 60,800* | | | | | | | | | | | | |
| 10 | 68 | 44,800* | 75 | 31,300* | | | | | | | | | | |
| 12 | 64 | 40,000* | 72 | 31,700* | 77 | 31,100* | | | | | | | | |
| 15 | 58 | 33,200* | 68 | 31,600* | 74 | 30,500* | 77 | 27,600* | | | | | | |
| 20 | 45 | 24,400* | 61 | 24,500* | 68 | 23,600* | 73 | 21,200* | 76 | 19,000* | | | | |
| 25 | 29 | 18,300* | 53 | 19,100* | 63 | 19,100* | 69 | 17,200* | 72 | 15,300* | 75 | 12,100* | | |
| 30 | | | 44 | 15,000* | 57 | 15,400* | 64 | 14,400* | 69 | 12,900* | 72 | 10,500* | | |
| 35 | | | 34 | 11,400 | 51 | 11,800 | 60 | 12,000 | 65 | 11,100* | 69 | 9,100* | | |
| 40 | | | 18 | 8,700 | 44 | 9,300 | 55 | 9,400 | 61 | 9,500 | 66 | 7,000* | | |
| 45 | | | | | 36 | 7,300 | 50 | 7,600 | 57 | 7,700 | 62 | 6,000* | | |
| 50 | | | | | 27 | 5,800 | 44 | 6,100 | 53 | 6,200 | 59 | 5,100* | | |
| 55 | | | | | 11 | 4,600 | 38 | 5,000 | 49 | 5,100 | 56 | 4,500* | | |
| 60 | | | | | | | 31 | 4,000 | 44 | 4,200 | 52 | 3,900* | | |
| 65 | | | | | | | 22 | 3,200 | 39 | 3,400 | 48 | 3,400* | | |
| 70 | | | | | | | | | 34 | 2,800 | 44 | 2,900 | | |
| 75 | | | | | | | | | 27 | 2,200 | 40 | 2,400 | | |
| 80 | | | | | | | | | 18 | 1,700 | 35 | 1,900 | | |
| 85 | | | | | | | | | | | 30 | 1,500 | | |
| 90 | | | | | | | | | | | 24 | 1,100 | | |
| 95 | | | | | | | | | | | 15 | 800 | | |

NOTE: STRUCTURAL STRENGTH RATINGS IN CHART ARE INDICATED WITH AN ASTERISK *

DO NOT OPERATE IN SHADED AREA WITHOUT OPTIONAL FRONT STABILIZER



Deductions from rate loads for load handling devices BT

| | |
|---------------------|-------------|
| Overhaul Ball | 200 lbs |
| 1 Sheave Load Block | 225-550 lbs |
| 2 Sheave Load Block | 300-650 lbs |

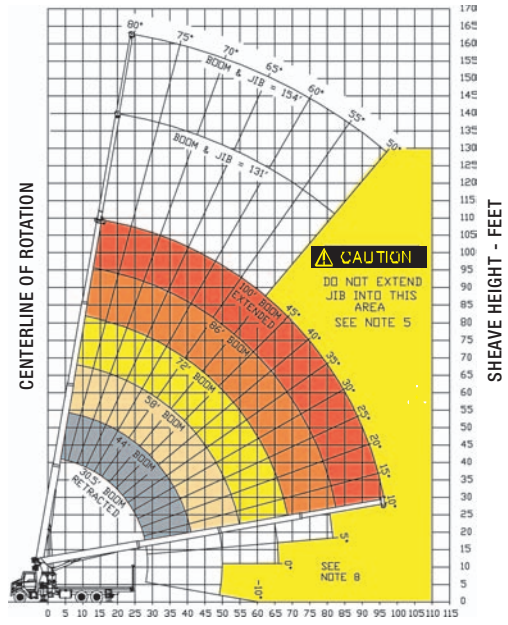
STOWED JIB DEDUCTIONS (POUNDS)

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| 900 | 700 | 500 | 400 | 335 | 300 |
|-----|-----|-----|-----|-----|-----|

JIB CAPACITIES FOR ALL BOOM LENGTHS VERIFY OPERATIONAL MODE SETTING ON LMI DISPLAY BEFORE LIFTING WITH JIB

| Loaded Boom Angle | 50° | 55° | 60° | 65° | 70° | 75° | 78° | 80° |
|-----------------------|-----|-------|-------|-------|-------|-------|-------|-------|
| Retracted 30.5 ft Jib | 800 | 1,400 | 2,300 | 3,300 | 4,000 | 5,300 | 6,000 | 6,450 |
| Extended 55 ft Jib | 700 | 1,050 | 1,700 | 2,300 | 3,000 | 3,500 | 3,500 | 3,500 |

RANGE DIAGRAM (30.5 - 100 FT BOOM)



GENERAL NOTES

- The operator must read and understand the Owner's Manual before operating this crane.
- Positioning or operation of crane beyond areas shown on this chart is not intended or approved except where specified in Owner's Manual.
- Loaded boom angles at specified boom lengths give only an approximation of the operating radius. The boom angle before loading should be greater to account for deflections. Do not exceed the operating radius for rated loads.
- Use rating of next longer boom for boom lengths not shown. Use rating of next greater radius for load radii not shown.
- Boom must be fully retracted when jib is erected before lowering below minimum angle. Retracted jib has no lifting capacity below a 50° boom angle.
- Use rating of next lower boom angle for boom angles not shown on jib load rating chart.
- Lifting off the main boom point while the swing around jib is erected is not intended or approved.
- Do not lower boom into this area, as hydraulic pressure will not allow raising the boom without retracting boom first.
- Crane load ratings on outriggers are based on freely suspended loads with the machine leveled and standing on a firm uniform supporting surface. No attempt shall be made to move a load horizontally on the ground in any direction.
- Practical working loads depend on supporting surface, wind and other factors affecting stability such as hazardous surroundings, experience of personnel, and proper handling, must all be taken into account by the operator.
- The maximum load which may be telescoped is limited by hydraulic pressure, boom angle, and boom lubrication. It is safe to attempt to telescope any load within the limits of the load rating chart.

INFORMATION

- Deductions must be made from rated loads for stowed jib, optional attachments, hooks and loadblocks (see deduction chart). Weights of slings and other load handling devices shall be considered a part of the load.
- Crane load ratings with outriggers are based on outriggers and stabilizers extended and set with all load removed from the carrier wheels.
- Load ratings do not exceed 85% of tipping load.

DEFINITIONS

- Operating radius is the horizontal distance from the axis of rotation to the center of the vertical hoist line or load hook with load suspended.
- Loaded boom angle as shown in the Load Ratings Chart is the included angle between the horizontal and longitudinal axes of the boom base after lifting rated load at rated radius.

RS MODEL

LOAD RATINGS



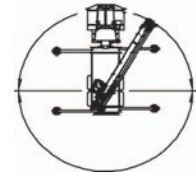
CAUTION Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change.

| BOOM LENGTH | | | | | | | | | | | | |
|--|-------------------------|------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|------------------|-------------------------|------------------|
| Maximum Load Chart in pounds (lbs) with fully extended outrigger | | | | | | | | | | | | |
| OPERATING RADIUS (FT) | 30.5 FT | | 44 FT | | 58 FT | | 72 FT | | 86 FT | | 100 FT | |
| | LOADED BOOM ANGLE (DEG) | LOAD RATING (LB) | LOADED BOOM ANGLE (DEG) | LOAD RATING (LB) | LOADED BOOM ANGLE (DEG) | LOAD RATING (LB) | LOADED BOOM ANGLE (DEG) | LOAD RATING (LB) | LOADED BOOM ANGLE (DEG) | LOAD RATING (LB) | LOADED BOOM ANGLE (DEG) | LOAD RATING (LB) |
| 5 | 74 | 70,000* | | | | | | | | | | |
| 8 | 67 | 44,900* | | | | | | | | | | |
| 10 | 63 | 39,000* | 72 | 31,100* | | | | | | | | |
| 12 | 59 | 34,400* | 69 | 31,100* | 74 | 31,100* | | | | | | |
| 15 | 52 | 29,190* | 65 | 27,800* | 71 | 26,700* | 75 | 24,200* | | | | |
| 20 | 38 | 22,300* | 57 | 22,000* | 66 | 21,200* | 71 | 19,200* | 74 | 17,000* | | |
| 25 | 17 | 14,900* | 49 | 18,000* | 60 | 17,500* | 67 | 16,000* | 71 | 14,400* | 73 | 12,100* |
| 30 | | | 40 | 14,800* | 54 | 14,700* | 62 | 13,300* | 67 | 12,000* | 70 | 10,500* |
| 35 | | | 27 | 11,600 | 48 | 12,000 | 57 | 11,500* | 63 | 10,300* | 67 | 9,100* |
| 40 | | | | | 41 | 9,200 | 53 | 9,400 | 59 | 9,100* | 64 | 6,500* |
| 45 | | | | | 32 | 7,200 | 47 | 7,400 | 55 | 7,500 | 61 | 5,600* |
| 50 | | | | | 21 | 5,700 | 42 | 5,900 | 51 | 6,000 | 58 | 4,900* |
| 55 | | | | | | | 35 | 4,700 | 47 | 4,900 | 54 | 4,200* |
| 60 | | | | | | | 27 | 3,800 | 42 | 3,900 | 50 | 3,600* |
| 65 | | | | | | | 16 | 3,000 | 37 | 3,200 | 47 | 3,100* |
| 70 | | | | | | | | | 31 | 2,500 | 42 | 2,600* |
| 75 | | | | | | | | | 23 | 2,000 | 38 | 2,100 |
| 80 | | | | | | | | | 12 | 1,500 | 33 | 1,600 |
| 85 | | | | | | | | | | | 27 | 1,200 |
| 90 | | | | | | | | | | | 20 | 900 |
| 95 | | | | | | | | | | | 7 | 600 |

NOTE: STRUCTURAL STRENGTH RATINGS IN CHART ARE INDICATED WITH AN ASTERISK *

AREA OF OPERATION

360° Full Capacity Area of Operation



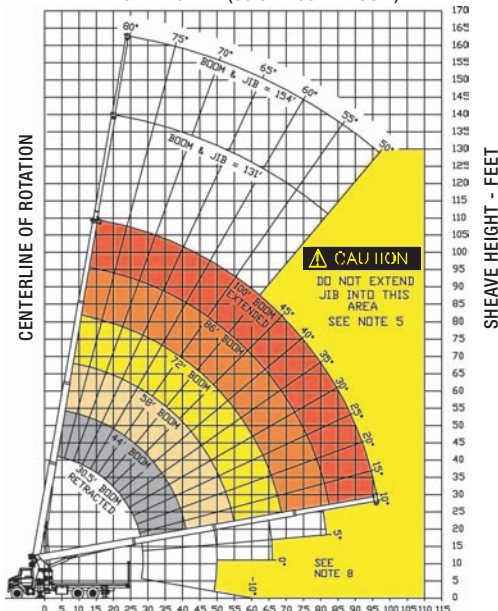
Deductions from rate loads for load handling devices BT

| | |
|---------------------|-------------|
| Overhaul Ball | 200 lbs |
| 1 Sheave Load Block | 225-550 lbs |
| 2 Sheave Load Block | 300-650 lbs |

| STOWED JIB DEDUCTIONS (POUNDS) | | | | | | |
|--------------------------------|-----|-----|-----|-----|-----|--|
| 900 | 700 | 500 | 400 | 335 | 300 | |

| JIB CAPACITIES FOR ALL BOOM LENGTHS | | | | | | | | |
|--|-----|-------|-------|-------|-------|-------|-------|-------|
| VERIFY OPERATIONAL MODE SETTING ON LMI DISPLAY BEFORE LIFTING WITH JIB | | | | | | | | |
| Loaded Boom Angle | 50° | 55° | 60° | 65° | 70° | 75° | 78° | 80° |
| Retracted 30.5 ft Jib | 800 | 1,400 | 2,300 | 3,300 | 4,000 | 5,300 | 6,000 | 6,450 |
| Extended 55 ft Jib | 700 | 1,050 | 1,700 | 2,300 | 3,000 | 3,500 | 3,500 | 3,500 |

RANGE DIAGRAM (30.5 - 100 FT BOOM)



GENERAL NOTES

- The operator must read and understand the Owner's Manual before operating this crane.
- Positioning or operation of crane beyond areas shown on this chart is not intended or approved except where specified in Owner's Manual.
- Loaded boom angles at specified boom lengths give only an approximation of the operating radius. The boom angle before loading should be greater to account for deflections. Do not exceed the operating radius for rated loads.
- Use rating of next longer boom for boom lengths not shown. Use rating of next greater radius for load radii not shown.
- Boom must be fully retracted when jib is erected before lowering below minimum angle. Retracted jib has no lifting capacity below a 50° boom angle.
- Use rating of next lower boom angle for boom angles not shown on jib load rating chart.
- Lifting off the main boom point while the swing around jib is erected is not intended or approved.
- Do not lower boom into this area, as hydraulic pressure will not allow raising the boom without retracting boom first.
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- Practical working loads depend on supporting surface, wind and other factors affecting stability such as hazardous surroundings, experience of personnel, and proper handling, must all be taken into account by the operator.
- The maximum load which may be telescoped is limited by hydraulic pressure, boom angle, and boom lubrication. It is safe to attempt to telescope any load within the limits of the load rating chart.

INFORMATION

- Deductions must be made from rated loads for stowed jib, optional attachments, hooks and loadlocks (see deduction chart). Weights of slings and other load handling devices shall be considered a part of the load.
- Crane load ratings with outriggers are based on outriggers and stabilizers extended and set with all load removed from the carrier wheels.
- Load ratings do not exceed 85% of tipping load.

DEFINITIONS

- Operating radius is the horizontal distance from the axis of rotation to the center of the vertical hoist line or load hook with load suspended.
- Loaded boom angle as shown in the Load Ratings Chart is the included angle between the horizontal and longitudinal axes of the boom base after lifting rated load at rated radius.

BT MODEL

| WINCH DATA | | | | | | | |
|---------------------------|------------------------------|----------------------|---------------------|---------------------|---------------------|-----------------------|-----------------------|
| Winch | Cable Supplied | 1 Part Line | 2 Part Line | 3 Part Line | 4 Part Line | 5 Part Line | 6 Part Line |
| | | | | | | | |
| Standard Stationary Winch | 5/8" Diam IWRC XXIP | 12,971 lb 196 fpm | 25,942 lb 98 fpm | 38,913 lb 65 fpm | 51,844 lb 49 fpm | 64,855 lb 39.2 fpm | 70,000 lb 32.7 fpm |
| | 5/8" Diam Rotation Resistant | 9080 lb 196 fpm | 18,160 lb 98 fpm | 27,240 lb 65 fpm | 36,320 lb 49 fpm | 45,400 lb 39.2 fpm | 54,480 lb 32.7 fpm |

| BLOCK TYPE | |
|----------------|--------------------------|
| Overhaul Ball | Rating: 7.0 ton (6.3 mt) |
| 1 Sheave Block | Rating: 20 ton (18.1 mt) |
| 2 Sheave Block | Rating: 30 ton (27.2 mt) |
| 3 Sheave Block | Rating: 35 ton (31.7 mt) |

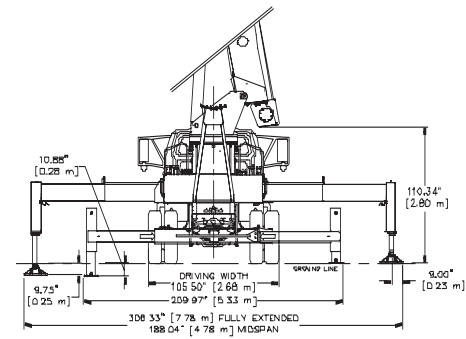
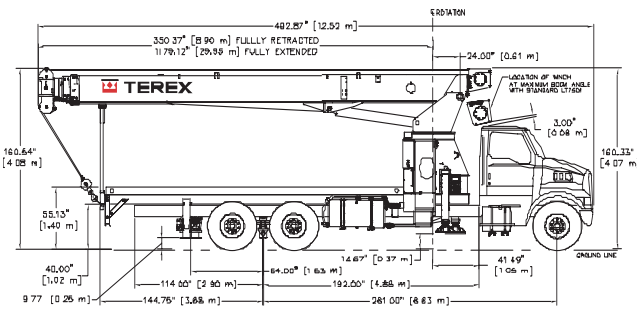
CAUTION

Overload and anti-two-block systems must be in good operating condition before operating crane. Refer to Owners Manual.

Keep at least 3 wraps of loadline on drum at all times.

Use only 5/8" diameter cable with 45,400 lb breaking strength on this machine.

2 MOUNTING CONFIGURATIONS



CARRIER PROVIDED BY TEREX

| STINGER BT70100 - Behind Cab Mounting Configuration | |
|---|------------------------------------|
| Manufacturer | Sterling LT7501 6 x 4 (60 000) |
| Standard Engine | Caterpillar C-7 7.2 L I-6 |
| Standard Horsepower | 300 hp @ 2,200 rpm |
| Standard Torque | 860 lb. Ft. @ 1,440 rpm |
| Full Tank Capacity | 120 gal (454 L) |
| Standard Transmission | Eaton Fuller RT-8908LL |
| Speed Standard Transmission | Manual 10-speed |
| Max Speed Standard Transmission | 74 mph (120 km/h) |
| Max Gradeability | 54% |
| Standard Transmission | |
| Optional Transmission | Allison |
| Speed Optional Transmission | Automatic 6-speeds |
| Max Speed Optional Transmission | 74 mph (120 km/h) |
| Max Gradeability | 17% |
| Optional Transmission | |
| Gross Vehicle Weight Rating | 60,000 lb (27 210 kg) |
| Front Axle Weight Rating | 20,000 lb (9 067 kg) |
| Rear Axle Weight Rating | 40,000 lb (18 144 kg) |
| Front Tires | 425/65R 22.5 Michelin XZY (20 ply) |
| Rear Tires | 11R 22.5 Michelin XDE M/S (14 ply) |
| Brakes | Air, Hydraulic Anti-Lock System |
| Exhaust Position | Vertical Right Side |

INCLUDED OPTIONS

- ▶ Dual Fuel Tanks (120 gal-454L)
- ▶ Power steering
- ▶ Electric Horn
- ▶ Factory A/C
- ▶ Power Port (Cigar lighter)
- ▶ AM/FM Radio w/ Clock
- ▶ Dual West Coast Stainless Rear View Mirrors
- ▶ Standard Factory Warranty

CHASSIS RECOMMENDATIONS

| STINGER BT70100 - Behind Cab Mounting Configuration | |
|---|---|
| Combined Axle Weight Rating | 60,000 lb (27 210 kg) |
| Front Axle Weight Rating | 20,000 lb (9 067 kg) |
| Rear Axle Weight Rating | 40,000 lb (18 144 kg) |
| Wheel base | 261" (6.62 m) |
| Cab to Axle | 192" (4.87 m) |
| Afterframe | 114" (2.90 m) |
| Frame Section Modulus | 30.0 in ³ (491 cm ³) |
| RBM per Frame Rail | 3,300,000 in/lb (38 020 kg/m) |
| Frame Height (Unloaded) | 40" (7.62 m) |
| Exhaust Position | Vertical Right Side |



BOOM TRUCK CRANE STINGER 70100

RS MODEL

WINCH DATA

| | | 1 Part Line | 2 Part Line | 3 Part Line | 4 Part Line | 5 Part Line | 6 Part Line |
|---------------------------|------------------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------|
| | | | | | | | |
| | | OVERHAUL BALL | ONE SHEAVE LOAD-BLOCK | ONE SHEAVE LOAD-BLOCK | TWO SHEAVE LOAD-BLOCK | TWO SHEAVE LOAD-BLOCK | THREE SHEAVE LOAD-BLOCK |
| Winch | Cable Supplied | Lift and Speed | Lift and Speed | Lift and Speed | Lift and Speed | Lift and Speed | Lift and Speed |
| Standard Stationary Winch | 5/8" Diam IWRC XXIP | 12,971 lb 196 fpm | 25,942 lb 98 fpm | 38,913 lb 65 fpm | 51,844 lb 49 fpm | 64,855 lb 39.2 fpm | 70,000 lb 32.7 fpm |
| | 5/8" Diam Rotation Resistant | 9080 lb 196 fpm | 18,160 lb 98 fpm | 27,240 lb 65 fpm | 36,320 lb 49 fpm | 45,400 lb 39.2 fpm | 54,480 lb 32.7 fpm |

BLOCK TYPE

| | |
|----------------|--------------------------|
| Overhaul Ball | Rating: 7.0 ton (6.3 mt) |
| 1 Sheave Block | Rating: 20 ton (18.1 mt) |
| 2 Sheave Block | Rating: 30 ton (27.2 mt) |
| 3 Sheave Block | Rating: 35 ton (31.7 mt) |

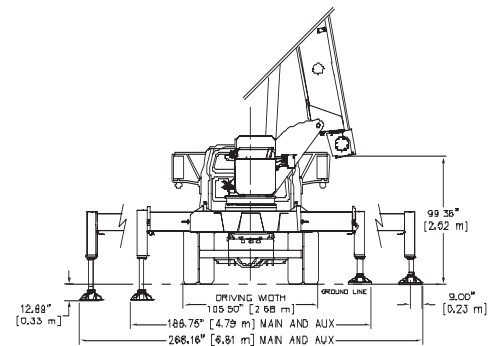
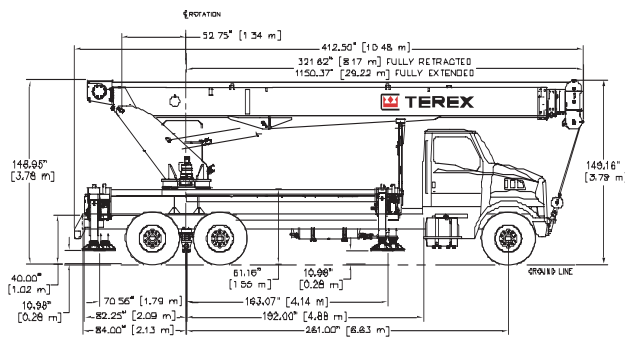
CAUTION

Overload and anti-two-block systems must be in good operating condition before operating crane. Refer to Owners Manual.

Keep at least 3 wraps of loadline on drum at all times.

Use only 5/8" diameter cable with 45,400 lb. breaking strength on this machine.

2 MOUNTING CONFIGURATIONS



CARRIER PROVIDED BY TEREX

STINGER RS70100 Riding Seat Mounting Configuration

| | |
|-----------------------------------|------------------------------------|
| ▶ Manufacturer | Sterling LT7501 6 x 4 (60 000) |
| ▶ Standard Engine | Caterpillar C-7 7.2 L I-6 |
| ▶ Standard Horsepower | 300 hp @ 2,200 rpm |
| ▶ Standard Torque | 860 lb. Ft. @ 1,440 rpm |
| ▶ Full Tank Capacity | 120 gal (454 L) |
| ▶ Standard Transmission | Eaton Fuller RT-8908LL |
| ▶ Speed Standard Transmission | Manual 10-speed |
| ▶ Max Speed Standard Transmission | 74 mph (120 km/h) |
| ▶ Max Gradeability | 54% |
| Standard Transmission | |
| ▶ Optional Transmission | Allison |
| ▶ Speed Optional Transmission | Automatic 6-speeds |
| ▶ Max Speed Optional Transmission | 74 mph (120 km/h) |
| ▶ Max Gradeability | 17% |
| Optional Transmission | |
| ▶ Gross Vehicle Weight Rating | 60,000 lb (27 210 kg) |
| ▶ Front Axle Weight Rating Rating | 20,000 lb (9 067 kg) |
| ▶ Rear Axle Weight Rating Rating | 40,000 lb (18 144 kg) |
| ▶ Front Tires | 425/65R 22.5 Michelin XZY (20 ply) |
| ▶ Rear Tires | 11R 22.5 Michelin XDE M/S (14 ply) |
| ▶ Brakes | Air, Hydraulic Anti-Lock System |
| ▶ Exhaust Position | Vertical Right Side |

INCLUDED OPTIONS

- ▶ Dual Fuel Tanks (120 gal-454 L)
- ▶ Power steering
- ▶ Electric Horn
- ▶ Factory A/C
- ▶ Power Port (Cigar lighter)
- ▶ AM/FM Radio w/ Clock
- ▶ Dual West Coast Stainless Rear View Mirrors
- ▶ Standard Factory Warranty

CHASSIS RECOMMENDATIONS

STINGER RS70100 Riding Seat Mounting Configuration

- ▶ Combined Axle Weight Rating 60,000 lb (27 210 kg)
- ▶ Front Axle Weight Rating 20,000 lb (9 067 kg)
- ▶ Rear Axle Weight Rating 40,000 lb (18 144 kg)
- ▶ Wheel base 261" (6.62 m)
- ▶ Cab to Axle 192" (4.87 m)
- ▶ Afterframe 114" (2.90 m)
- ▶ Frame Section Modulus 30.0 in³ (491 cm³)
- ▶ RBM per Frame Rail 3,300,000 in/lb (38 020 kg/m)
- ▶ Frame Height (Unloaded) 40" (7.62 m)
- ▶ Exhaust Position Vertical Right Side