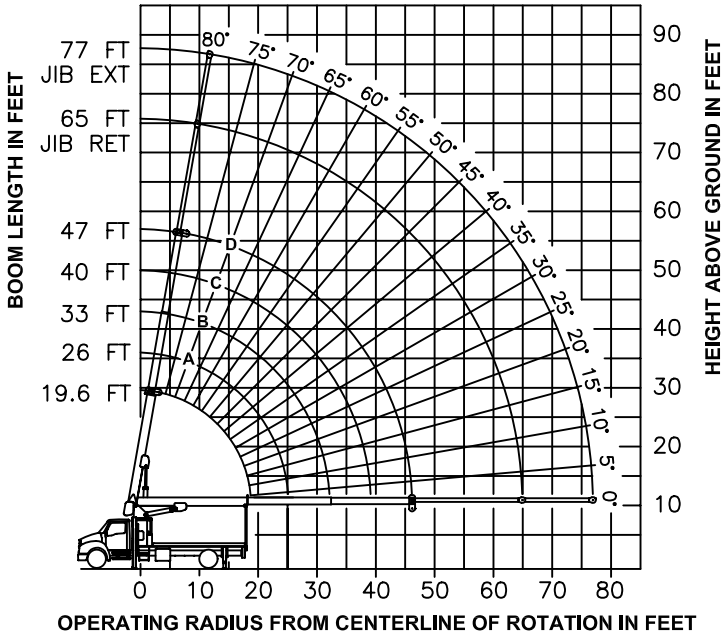
## RANGE DIAGRAM




LOAD RATINGS IN LBS WITH OUTRIGGERS AND STABILIZERS EXTENDED

| OPERATING RADIUS FT | LOADED BOOM ANGLE | BOOM LENGTH & MARKER | | A | | B | | C | | D | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | ∠ | 19.6 FT | ∠ | 26 FT | ∠ | 33 FT | ∠ | 40 FT | ∠ | 47 FT |
| 5 | 75 | 34000 | | | | | | | | |
| 10 | 59 | 20880 | 67 | 19000 | 73 | 15640 | 76 | 15060 | 78 | 14650 |
| 15 | 39 | 15240 | 54 | 14310 | 63 | 11310 | 68 | 10780 | 72 | 10390 |
| 20 | | | 39 | 11270 | 53 | 8950 | 60 | 8490 | 65 | 8130 |
| 25 | | | 9 | 7860 | 40 | 7340 | 51 | 7010 | 58 | 6710 |
| 30 | | | | | 23 | 5860 | 41 | 5920 | 51 | 5690 |
| 35 | | | | | | | 28 | 4940 | 42 | 4900 |
| 40 | | | | | | | | | 32 | 4200 |
| 45 | | | | | | | | | 15 | 3400 |
| | 220 LBS | | 170 LBS | | 130 LBS | | 110 LBS | | 90 LBS | |
| | 360 LBS | | 270 LBS | | 210 LBS | | 180 LBS | | 150 LBS | |

JIB LOAD RATINGS WITH OUTRIGGERS AND STABILIZERS EXTENDED

| FIXED JIB | | TELESCOPIC JIB | | | |
|---|---|---|---|---|---|
| LOADED BOOM ANG | JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4 | LOADED BOOM ANG | JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4 | LOADED BOOM ANG | JIB LENGTH FOR ALL BOOM LENGTHS SEE WARNING NOTE 4 |
| ∠ | 18 FT | ∠ | 18 FT | ∠ | 30 FT |
| 80 | 6300 | 80 | 6200 | 80 | 3500 |
| 75 | 4900 | 75 | 4800 | 75 | 2800 |
| 70 | 3800 | 70 | 3700 | 70 | 2300 |
| 65 | 3100 | 65 | 3000 | 65 | 1900 |
| 60 | 2600 | 60 | 2500 | 60 | 1600 |
| 55 | 2200 | 55 | 2100 | 55 | 1400 |
| 50 | 2000 | 50 | 1900 | 50 | 1200 |
| 45 | 1800 | 45 | 1700 | 45 | 1000 |
| 40 | 1700 | 40 | 1600 | 40 | 900 |
| 35 | 1600 | 35 | 1500 | 35 | 850 |
| 30 | 1500 | 30 | 1400 | 30 | 800 |
| 25 | 1400 | 25 | 1300 | 25 | 750 |
| 20 | 1300 | 20 | 1200 | 20 | 700 |
| 15 | 1200 | 15 | 1100 | 15 | 650 |

DEDUCTIONS FOR STOWED FIXED JIB

DEDUCTIONS FOR STOWED TELESCOPIC JIB

WARNING

1. THE OPERATOR MUST READ AND UNDERSTAND THE OWNER'S MANUAL BEFORE OPERATING THIS CRANE.
2. POSITIONING OR OPERATION OF CRANE BEYOND AREAS SHOWN ON THIS CHART IS NOT INTENDED OR APPROVED EXCEPT WHERE SPECIFIED IN OWNER'S MANUAL.
3. 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.
4. JIB RATING CHART IS BASED ON LOADED BOOM ANGLES OF MAIN BOOM AND NOT ON LOAD RADIUS.
5. BOOM MUST BE FULLY RETRACTED WHEN JIB IS ERECTED, BEFORE LOWERING BOOM THRU THIS AREA.
6. FOR BOOM ANGLES NOT SHOWN ON JIB LOAD RATING CHART, USE RATING OF NEXT LOWER BOOM ANGLE.
7. FOR BOOM LENGTHS NOT SHOWN, USE RATING OF NEXT LONGER BOOM LENGTH. FOR RADII NOT SHOWN, USE RATING OF NEXT LONGER RADIUS.
8. 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.
9. PRACTICAL WORKING LOADS DEPEND ON SUPPORTING SURFACE, WIND, AND OTHER FACTORS AFFECTING STABILITY SUCH AS HAZARDOUS SURROUNDINGS, EXPERIENCE OF PERSONNEL, AND PROPER HANDLING, ALL OF WHICH MUST BE TAKEN INTO ACCOUNT BY THE OPERATOR.
10. 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. BOOM MUST BE FULLY RETRACTED AGAINST BOOM STOPS AT ALL TIMES WHEN LIFTING MINIMUM BOOM LENGTH CAPACITY LOADS.

INFORMATION

1. DEDUCTIONS MUST BE MADE FROM RATED LOADS FOR STOWED JIB, OPTIONAL ATTACHMENTS, HOOKS, AND LOADBLOCKS (SEE DEDUCTION CHART). WEIGHTS OF SLINGS AND ALL OTHER LOAD HANDLING DEVICES SHALL BE CONSIDERED A PART OF THE LOAD.
2. CRANE LOAD RATINGS WITH OUTRIGGERS ARE BASED ON OUTRIGGERS AND STABILIZERS EXTENDED AND SET WITH MACHINE LEVELED.
3. LOAD RATINGS ABOVE THE HEAVY LINE ARE STRUCTURALLY LIMITED CAPACITIES AND DO NOT EXCEED 85% OF TIPPING.

DEFINITIONS

1. OPERATING RADIUS IS THE HORIZONTAL DISTANCE FROM THE AXIS OF ROTATION TO THE CENTER OF THE VERTICAL HOIST LINE OR TACKLE WITH LOAD APPLIED.
2. LOADED BOOM ANGLE AS SHOWN IN THE COLUMN HEADED BY ∠, IS THE INCLUDED ANGLE BETWEEN THE HORIZONTAL AND LONGITUDINAL AXES OF THE BOOM BASE AFTER LIFTING RATED LOAD AT RATED RADIUS.

## ALLOWABLE LINE PULL

| 1 PART LINE | 2 PART LINE | 3 PART LINE | 4 PART LINE |
|---|---|---|---|
| OVERHAUL BALL | SINGLE OR DOUBLE SHEAVE LOAD BLOCK | SINGLE OR DOUBLE SHEAVE LOAD BLOCK | DOUBLE OR TRIPLE SHEAVE LOAD BLOCK |
| 8500 LBS | 17000 LBS | 25500 LBS | 34000 LBS |
| 7400 LBS | 14800 LBS | 22200 LBS | 29600 LBS |

## WARNING

ANTI–TWO–BLOCK SYSTEM MUST BE IN GOOD OPERATING CONDITION BEFORE OPERATING CRANE. REFER TO OWNER'S MANUAL.

KEEP AT LEAST 5 WRAPS OF LOAD LINE ON DRUM AT ALL TIMES.

9/16" – 6 X 37 IWRC (3.5:1 S.F.) 29,800 LBS. BREAKING STRENGTH

9/16" ROT RESISTANT (5.0:1 S.F.) 37000 LBS. BREAKING STRENGTH

DEDUCTIONS FROM RATED LOADS FOR LOAD HANDLING DEVICES SUPPLIED BY MANITEX.

OVERHAUL BALL — SEE OVERHAUL BALL MFGR. NAMEPLATE
LOAD BLOCK — SEE BLOCK MFGR. NAMEPLATE
HOSE REEL — 160 LBS
SWING AROUND JIB — SEE LOAD CHART

WARNING

LIFTING OFF THE MAIN BOOM POINT WHILE THE JIB IS ERECTED IS NOT INTENDED OR APPROVED.

Manitex

*MODEL 1747C and T*

CRANE MEETS ANSI B30.5 REQUIREMENTS

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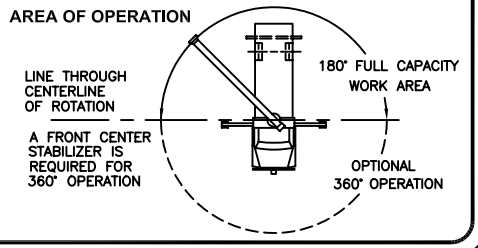
AREA OF OPERATION