



LOAD CHARTS

for Use With

WRITTEN EXAMINATIONS



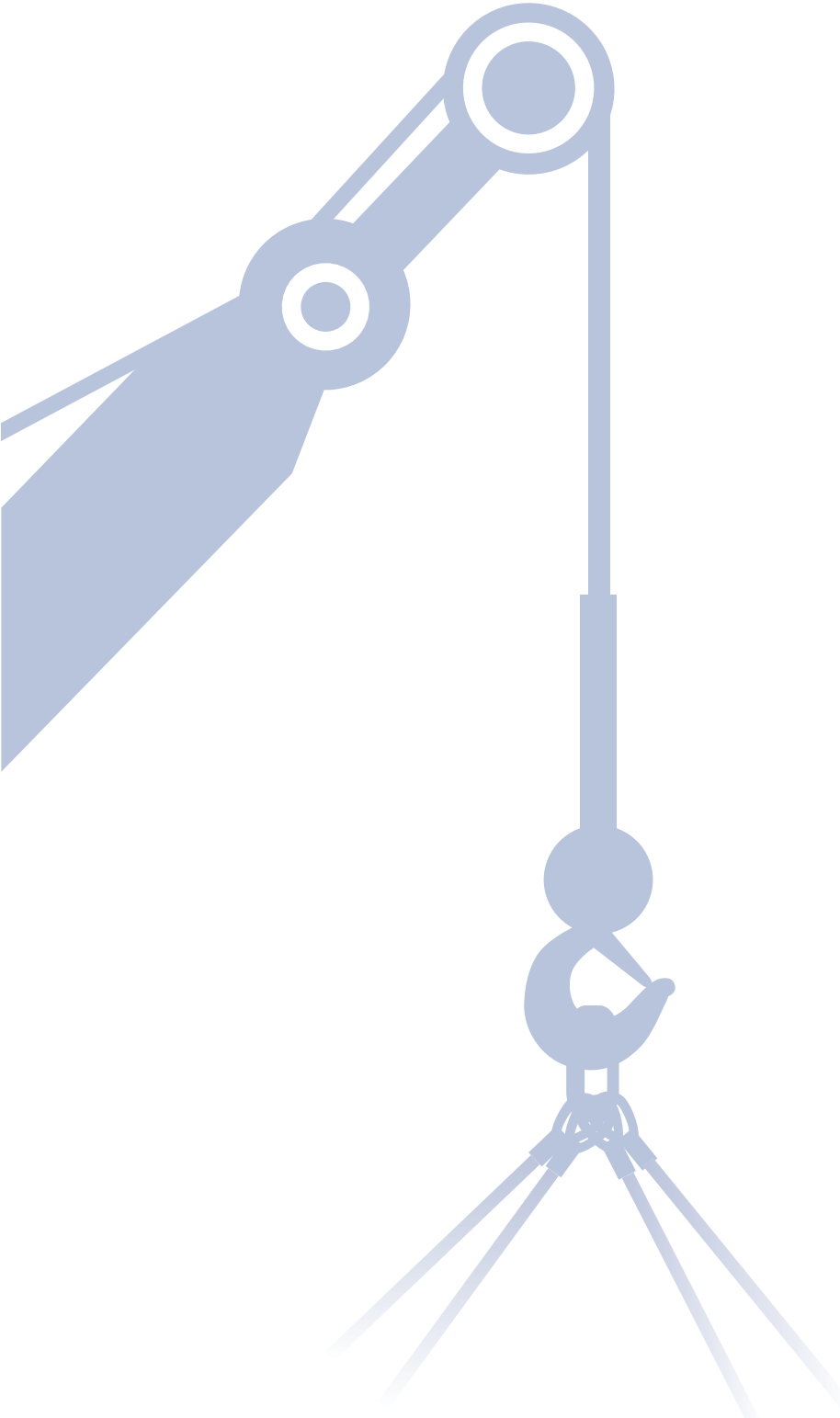
Grove YB5515

Manitowoc Crane Group, by providing pages of one of its manuals, is not providing a substitute for training on a Manitowoc crane.

These pages are reproduced for illustration only and not as a substitute for reviewing the entire manual for a particular crane.

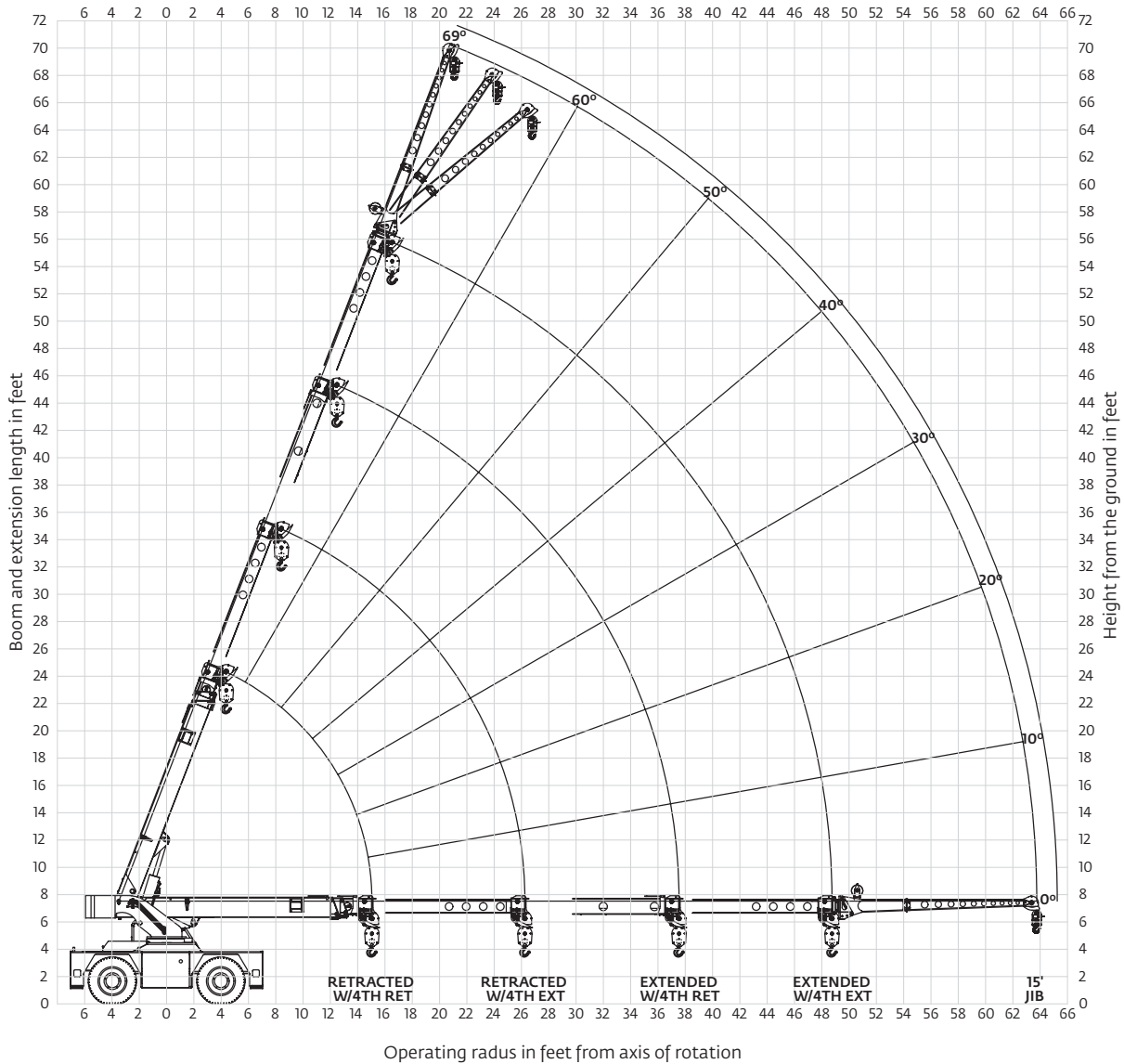
Make sure that you are fully trained on, and review the entire manual for, every crane you operate.

This load chart has been adapted from the original manufacturer's load chart for use in the NCCER Mobile Crane Certification Examination. It is not to be used for calculating loads, planning lifts, or for any other purpose.



Range diagram

YB5515 (four-section boom)



THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

YB5515 (four-section boom)

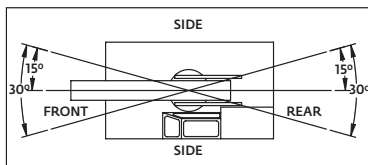
| RADIUS (ft) | 4TH RETRACTED | | | | RADIUS (ft) | 4TH EXTENDED | | | |
|----------------|--------------------|--------|----------------|--------|----------------|--------------------|--------|----------------|--------|
| | ON OUTRIGGERS (lb) | | ON RUBBER (lb) | | | ON OUTRIGGERS (lb) | | ON RUBBER (lb) | |
| | F/R | 360° | F/R | 360° | | F/R | 360° | F/R | 360° |
| 6.0 | 30,000 | 30,000 | 17,000 | 17,000 | 6.0 | - | - | - | - |
| 8.0 | 26,200 | 26,200 | 13,500 | 14,600 | 8.0 | 11,000 | 11,000 | 11,000 | 11,000 |
| 10.0 | 22,300 | 22,300 | 10,700 | 11,000 | 10.0 | 10,700 | 10,700 | 10,700 | 10,700 |
| 12.0 | 18,600 | 18,600 | 8710 | 7650 | 12.0 | 9250 | 9250 | 9250 | 9250 |
| 14.0 | 14,800 | 14,800 | 7210 | 5480 | 14.0 | 8290 | 8390 | 7760 | 7500 |
| 15.0 | 13,000 | 13,000 | 6600 | 4890 | 15.0 | 8200 | 8200 | 7150 | 6080 |
| 16.0 | 12,200 | 12,200 | 6060 | 4500 | 16.0 | 8110 | 8110 | 6610 | 5510 |
| 18.0 | 10,800 | 10,600 | 4950 | 3750 | 18.0 | 7950 | 7950 | 5680 | 4500 |
| 20.0 | 9630 | 8630 | 3980 | 3080 | 20.0 | 7820 | 7820 | 4730 | 3560 |
| 22.0 | 8640 | 7350 | 3230 | 2460 | 22.0 | 7710 | 7710 | 3980 | 3000 |
| 24.0 | 7790 | 6460 | 2720 | 1990 | 24.0 | 7630 | 7270 | 3410 | 2520 |
| 26.0 | 6800 | 5700 | 2360 | 1610 | 26.0 | 7100 | 6330 | 2940 | 2150 |
| 28.0 | 5820 | 5040 | 2100 | 1410 | 28.0 | 6590 | 5420 | 2550 | 1840 |
| 30.0 | 5020 | 4420 | 1880 | 1220 | 30.0 | 5710 | 4760 | 2190 | 1580 |
| 32.0 | 4400 | 3950 | 1650 | 1070 | 32.0 | 5180 | 4080 | 1880 | 1360 |
| 34.0 | 3930 | 3570 | 1460 | 920 | 34.0 | 4680 | 3570 | 1600 | 1160 |
| 36.0 | 3510 | 3190 | 1280 | 770 | 36.0 | 4250 | 3190 | 1370 | 990 |
| 37.5 | 3210 | 2890 | 1180 | 680 | 37.5 | 3830 | 2970 | 1240 | 880 |
| 40.0 | 2950 | 2600 | 1070 | 610 | 40.0 | 3400 | 2700 | 1070 | 740 |
| 42.0 | 2760 | 2430 | 970 | 550 | 42.0 | 3150 | 2490 | 960 | 630 |
| 44.0 | 2590 | 2250 | 890 | 500 | 44.0 | 2890 | 2300 | 870 | 540 |
| 46.0 | 2430 | 2090 | 800 | 450 | 46.0 | 2630 | 2130 | 790 | 470 |
| 48.8 | 2240 | 1850 | 680 | 380 | 48.8 | 2320 | 1930 | 710 | 370 |
| 52.5 | 2030 | 1480 | 500 | 290 | 52.5 | 2070 | 1710 | 590 | 280 |
| 58.0 | - | - | - | - | 58.0 | 1720 | 1380 | 420 | 170 |
| 63.8 | - | - | - | - | 63.8 | 1330 | 1020 | 230 | 60 |

| MAIN BOOM ANGLE (deg) | JIB STRUCTURAL CAPACITIES (lb) | | | | | |
|--------------------------------|--------------------------------|------|------|--------------|------|------|
| | 4TH RETRACTED | | | 4TH EXTENDED | | |
| | 0° | 15° | 30° | 0° | 15° | 30° |
| 69 | 6000 | 3900 | 2800 | 5180 | 3900 | 2800 |
| 65 | 5000 | 3500 | 2550 | 4970 | 3500 | 2550 |
| 60 | 4300 | 3150 | 2350 | 4300 | 3150 | 2350 |
| 55 | 3800 | 2850 | 2200 | 3800 | 2850 | 2200 |
| 50 | 3400 | 2600 | 2100 | 3400 | 2600 | 2100 |
| 45 | 3050 | 2400 | 2000 | 3050 | 2400 | 2000 |
| 40 | 2800 | 2250 | 1950 | 2800 | 2250 | 1950 |
| 35 | 2600 | 2150 | 1900 | 2600 | 2150 | 1900 |
| 30 | 2400 | 2080 | 1850 | 2400 | 2080 | 1850 |
| 25 | 2300 | 2050 | - | 2300 | 2050 | - |
| 20 | 2200 | 2000 | - | 2200 | 2000 | - |
| 15 | 2100 | 1950 | - | 2100 | 1950 | - |
| 10 | 2050 | - | - | 2050 | - | - |
| 5 | 2020 | - | - | 2020 | - | - |
| 0 | 2000 | - | - | 2000 | - | - |

NOTES:
JIB CAPACITY IS LIMITED BY BOTH STRUCTURAL CAPACITY CHART AND MAIN CAPACITY CHART.

SHADED AREAS ARE GOVERNED BY STRUCTURAL STRENGTH, DO NOT RELY ON TIPPING.

OPERATION OF THIS EQUIPMENT IN EXCESS OF RATING CHARTS AND DISREGARD OF INSTRUCTIONS IS DANGEROUS AND VOIDS WARRANTY.



| REDUCTION CHART | | |
|-----------------|------------------------|------------------|
| | FROM MAIN BOOM RATINGS | FROM JIB RATINGS |
| MAIN BLOCK | 210 lb | N/A |
| HOOK & BALL | 100 lb | 100 lb |
| JIB, STOWED | 0 lb | N/A |
| JIB, DEPLOYED | 700 lb | 0 lb |

| RIGGING CHART | |
|--|-------------------------|
| 1-PART 0 - 7500 lb | 4-PART 0 - 30,000 lb |
| WIRE ROPE: 1/2 inch diameter Min. breaking strength 26,250 lb | |

- The rated loads are the maximum lifting capacities as determined by operating radius only. Any combination of boom lengths and angles may be used to obtain operating radius. The operating radius is the horizontal distance from a projection of the axis of rotation to the supporting surface, before loading, to the center of vertical hoist line or tackle with load applied.
- The rated loads shown on outriggers do not exceed 85% of actual tipping. The rated loads shown on rubber do not exceed 75% of actual tipping. These ratings are based on freely suspended loads with the crane leveled, standing on a firm, uniform supporting surface. Practical working loads depend on supporting surface, operating radius and other factors affecting stability. Hazardous surroundings, climatic conditions, experience of operator and proper training must be taken into account by the operator.
- The weights of all load handling devices, such as hooks, hook blocks, slings, etc., except the hoist rope, shall be considered as part of the load. See reduction chart.
- Ratings on outriggers are with outriggers fully extended.
- Ratings on rubber depend on tire capacity, condition of tires and proper inflation pressure (120 psi). Loads on rubber may be transported at a maximum speed of 2.5 mph on a smooth, hard, level surface with the boom retracted to the shortest length possible and centered over the front.
- For operating radius not shown, use load rating of next larger radius.
- The maximum combined total boom and deck load is 16,000 lb. The maximum deck load only is 20,000 lb.
- Do not induce any external side loads to boom or jib.

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