## Tech Spec

## RT-300-B



## RT-300-2B

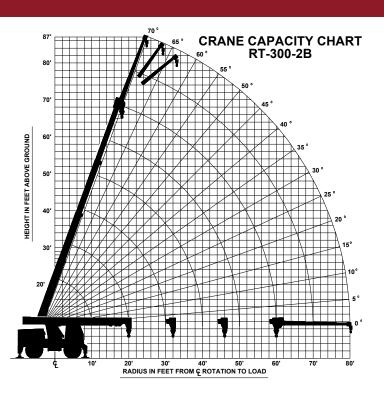
|        | CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE |                                |               |            |               |  |  |
|--------|---|--------------------------------|---------------|------------|---------------|--|--|
|        | LOAD  | MAIN BOOM CAPACITIES IN POUNDS |               |            |               |  |  |
|        | RADIUS  | 360° RO                        | TATION        | OVER FRONT |               |  |  |
|        | FEET  | ON RUBBER                      | ON OUTRIGGERS | ON RUBBER  | ON OUTRIGGERS |  |  |
|        | 10  | 19150                          | 30000         | 26300      | 30000         |  |  |
|        | 12  | 14050                          | 28500         | 22500      | 28500         |  |  |
|        | 14  | 11800                          | 25950         | 17950      | 25950         |  |  |
|        | 16  | 9000                           | 22500         | 14500      | 22550         |  |  |
|        | 18  | 7500                           | 19500         | 11850      | 19500         |  |  |
|        | 20  | 6150                           | 17050         | 9900       | 17050         |  |  |
|        | 22  | 5050                           | 14550         | 8100       | 15000         |  |  |
|        | 24  | 4050                           | 12350         | 6750       | 13300         |  |  |
| Σ      | 26  | 3300                           | 10550         | 5650       | 11900         |  |  |
| 0      | 28  | 2800                           | 9100          | 4750       | 10650         |  |  |
| 8      | 30  | 2250                           | 8000          | 4150       | 9600          |  |  |
| z      | 32  | 1800                           | 7150          | 3550       | 8600          |  |  |
| _      | 34  | 1500                           | 6400          | 3150       | 8050          |  |  |
| ĕ<br>⋝ | 36  | 1200                           | 5800          | 2850       | 7500          |  |  |
| _      | 38  | 1050                           | 5350          | 2650       | 6950          |  |  |
|        | 40  | 900                            | 4950          | 2400       | 6500          |  |  |
|        | 44  | 700                            | 4250          | 1900       | 5600          |  |  |
|        | 48  |                                | 3600          | 1600       | 4850          |  |  |
|        | 52  |                                | 3150          | 1300       | 4150          |  |  |
|        | 56  |                                | 2750          | 1050       | 3650          |  |  |
|        | 60  |                                | 2300          | 850        | 3200          |  |  |
| NO     | 64  |                                | 1950          |            | 2300          |  |  |
|        | 68  |                                | 1750          |            | 2300          |  |  |
| BOOM   | 72  |                                | 1500          |            | 2250          |  |  |
| . F    | 76  |                                | 1300          |            | 1950          |  |  |
|        | 80  |                                | 1100          |            | 1700          |  |  |

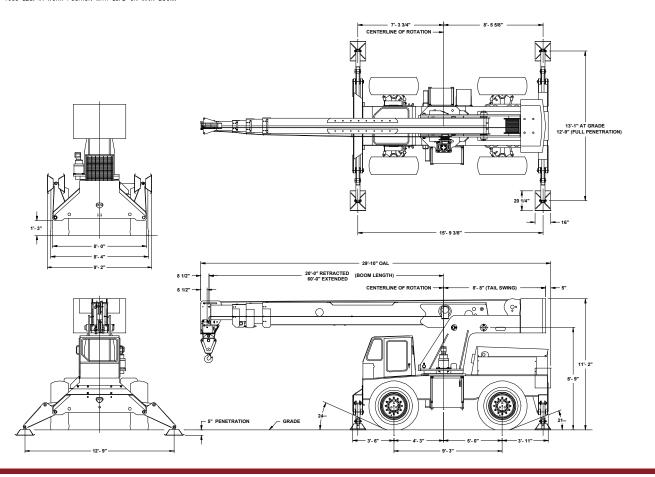
CAPACITIES ON OUTRIGGERS ARE 85% OF TIPPING LOADS — ON RUBBER 75% OF TIPPING. CAPACITIES ABOVE BOLD LINES ARE LIMITED BY STRUCTURAL OR HYDRAULIC CAPABILITIES. CAPACITIES BELOW BOLD LINES ARE LIMITED BY TIPPING. DO NOT POSITION BOOM AT LOAD RADII WHERE NO LOAD CAPACITIES ARE SHOWN.

| 20 FOOT - BOOM EXTENSION CAPACITIES |      |      |      |        |       |      |      |
|-------------------------------------|------|------|------|--------|-------|------|------|
| BOOM EXTENSION                      |      |      | MAIN | BOOM A | ANGLE |      |      |
| OFFSET ANGLE                        | 0,   | 15*  | 30°  | 40*    | 50    | 60   | 70°  |
| 0,                                  | 2300 | 2400 | 2700 | 3100   | 3700  | 4800 | 6200 |
| 15°                                 | 0    | 2300 | 2400 | 2600   | 2900  | 3400 | 4100 |
| .30*                                | 0    | 0    | 2300 | 2400   | 2500  | 2700 | 3100 |

CAUTION: BOOM EXTENSION LOADS MUST NOT EXCEED MAIN BOOM CAPACITY.

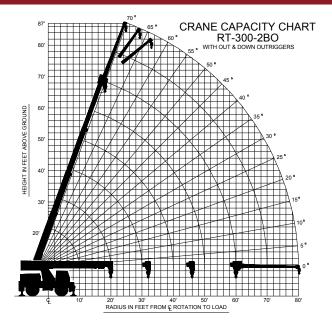
BOOM EXTENSION DEDUCT: 500 LBS. WHEN STOWED ON BASE BOOM.
1000 LBS. IN WORK POSITION WITH LOAD ON MAIN BOOM.





## RT-300-2BO

|      | CAPACITIES APPLY TO OPERATION ON FIRM LEVEL SURFACE |           |                 |                  |           |               |  |
|------|---|-----------|-----------------|------------------|-----------|---------------|--|
|      | LOAD MAIN BOOM CAPACITIES IN POUNDS                 |           |                 |                  |           |               |  |
|      | RADIUS  |           | 360° ROTATIO    | OVER FRONT       |           |               |  |
|      | FEET  | ON RUBBER | O/R'S IN & DOWN | O/R'S OUT & DOWN | ON RUBBER | ON OUTRIGGERS |  |
|      | 10  | 18800     | 25500           | 30000            | 24900     | 30000         |  |
|      | 12  | 15200     | 20800           | 28500            | 21400     | 28500         |  |
|      | 14  | 11000     | 16000           | 25950            | 18100     | 25950         |  |
|      | 16  | 8800      | 12600           | 22500            | 14300     | 22500         |  |
|      | 18  | 7200      | 10300           | 19500            | 11800     | 19500         |  |
|      | 20  | 5900      | 8500            | 17050            | 9700      | 17050         |  |
|      | 22  | 4900      | 7100            | 15000            | 8200      | 15000         |  |
|      | 24  | 4050      | 5900            | 13300            | 7000      | 13300         |  |
| Σ    | 26  | 3300      | 4900            | 11900            | 6000      | 11900         |  |
| 0    | 28  | 2800      | 4100            | 10650            | 5100      | 10650         |  |
| N BO | 30  | 2250      | 3500            | 9600             | 4400      | 9600          |  |
|      | 32  | 1800      | 3000            | 8600             | 3800      | 8600          |  |
|      | 34  | 1500      | 2600            | 8050             | 3400      | 8050          |  |
| ₹    | 36  | 1300      | 2200            | 7500             | 3000      | 7500          |  |
| Σ    | 38  | 1100      | 2000            | 6950             | 2700      | 6950          |  |
|      | 40  | 1000      | 1800            | 6500             | 2500      | 6500          |  |
|      | 44  | 700       | 1400            | 5700             | 2100      | 5700          |  |
|      | 48  |           | 1100            | 5000             | 1700      | 5000          |  |
|      | 52  |           | 900             | 4400             | 1400      | 4400          |  |
|      | 56  |           | 700             | 4000             | 1150      | 4000          |  |
|      | 60  |           | 500             | 3500             | 900       | 3500          |  |
| BOOM | 64  |           |                 | 2700             |           | 2700          |  |
|      | 68  |           |                 | 2500             |           | 2500          |  |
|      | 72  |           |                 | 2400             |           | 2400          |  |
|      | 76  |           |                 | 2100             |           | 2100          |  |
| l û  | 80  |           |                 | 1900             |           | 1900          |  |



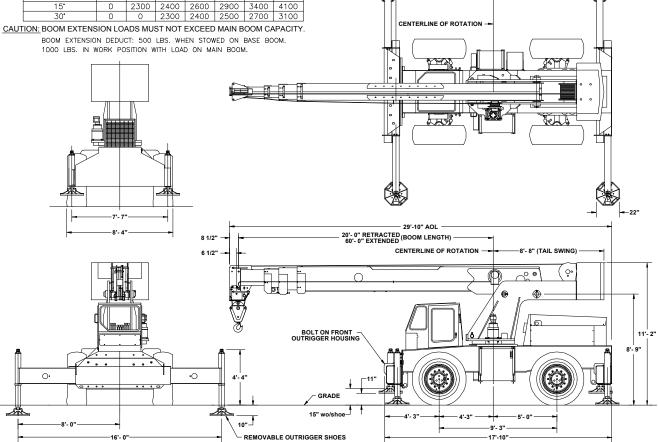
8'- 4 1/4"

OUTRIGGERS MUST BE FULLY EXTENDED OUTWARD TO USE THE O/R'S OUT & DOWN CAPACITIES. OVER FRONT, ON RUBBER CAPACITIES ARE FOR SMOOTH PAVED SURFACE. FOR UNPAVED SURFACE REDUCE CAPACITY BY 25%. CAPACITIES ON OUTRIGGERS ARE 85% OF TIPPING LOADS — ON RUBBER 75% OF TIPPING. CAPACITIES ABOVE BOLD LINES ARE LIMITED BY STRUCTURAL OR HYDRAULIC CAPABILITIES. CAPACITIES BELOW BOLD LINES ARE LIMITED BY STRUCTURAL OR HYDRAULIC CAPABILITIES. COMPACTION BOOM AT LOAD RADII WHERE NO LOAD CAPACITIES ARE SHOWN.

20 FOOT - BOOM EXTENSION CAPACITIES BOOM EXTENSION MAIN BOOM ANGLE OFFSET ANGLE 30° 40° 50° 0

 
 2400
 2700
 3100
 3700
 4800
 6200

 2300
 2400
 2600
 2900
 3400
 4100
 30° 0



#### **GENERAL:**

| Weight:            | RT-300-2B              | RT-300-2B0    |  |  |
|--------------------|------------------------|---------------|--|--|
| Total              | 44,100 lbs             | . 46,500 lbs. |  |  |
| Front Axle         | 21,500 lbs.            | 23,210 lbs.   |  |  |
| Rear Axle          | 22,600 lbs.            | 23,290 lbs.   |  |  |
| Angle of Approach  | 26 Degrees             | 20 Degrees    |  |  |
| Angle of Departure | 24 Degrees 20 Degre    |               |  |  |
| Gradeability       | 70 Percent on Concrete |               |  |  |

Turning Radius: 4-Wheel Steer: (Min.)

Outside Tire C/L Radius 14 Feet 11 Inches Vehicle Clearance Circle (Dia.) 34 Feet 0 Inches

**Drawbar Pull** 23,400 pounds

Road Speed 26 Miles Per Hour (Max.)

| ENGINE:     | <u>Standard</u>    | <u>Optional</u> |
|-------------|--------------------|-----------------|
| Make        | John Deere         | Cummins         |
| Model       | 6068D              | 6BT5.9          |
| Туре        | Diesel             | Turbo Diesel    |
| C.I.D.      | 414                | 359             |
| Max. Torque | 335 @ 1200 RPM     | 410 @ 1600 RPM  |
| Rated HP    | 130 @ 2500 RPM     | 152 @ 2500 RPM  |
| FUEL TANK:  | 50 Gallon Capacity | _               |

#### TRANSMISSION

Make Funk Model 2000

Type 6-Speed Powershift With Torque Converter, Oil

Cooler and Filter

| Cooler and Tiller |   |  |  |  |  |
|-------------------|---|--|--|--|--|
| Forward           | Reverse   |  |  |  |  |
| 8.20:1            | 8.20:1  |  |  |  |  |
| 4.64:1            | 3.53:1  |  |  |  |  |
| 3.53:1            | 1.41:1  |  |  |  |  |
| 2.00:1            |   |  |  |  |  |
| 1.41:1            |   |  |  |  |  |
| .80:1             |   |  |  |  |  |
|                   | Forward<br>8.20:1<br>4.64:1<br>3.53:1<br>2.00:1<br>1.41:1 |  |  |  |  |

#### AXLES:

#### Front and Rear Axles:

Make Rockwell Gear Ratio 16.67:1

#### **BRAKES:**

Service - 4-Wheel Drum Type with Hydraulic Booster Parking - Spring-Applied and Hydraulically-Released Mounted On Transmission

#### STEERING:

Hydraulic steering unit with two 3.5 inch cylinders attached to each axle. Allows limited steering when engine is not running. Steering wheel and selector valve control 3-mode steering: Two-Wheel Front Axle Steer, Crab and Round.

#### TIRES

Standard - 17.5 x 25, 20-Ply Rating Mud Lug.

#### **CHASSIS:**

#### Outriggers:

#### RT-300-2B:

Four independently controlled outriggers of swing-down design. Hydraulic cylinders are equipped with direct-connected holding valves.

## CHASSIS: (Contíd) Outriggers:

#### RT-300-2BO:

Four independently controlled outriggers of out and down design. All cylinders are equipped with direct-connected holding valves. Foot pad dimensions are 22" octagon. Pads are removable and stow on chassis when roading crane.

#### **OPERATOR'S COMPARTMENT:**

Operator control station provides one-position access to all chassis and crane controls.

#### **ELECTRICAL SYSTEM:**

## 12 Volt DC System Instrument Group:

Fuel, transmission oil temperature, ammeter, engine oil pressure, water & hydraulic oil temperature gauges and hourmeter.

#### **HYDRAULIC SYSTEM:**

Triple vane pump, mounted and driven by main transmission. Rated 9, 26 and 44 GPM at 3,000 PSI at 2,500 RPM engine speed. Hydraulic oil tank capacity of 70 gallons.

#### **BOOM ASSEMBLY:**

| Boom Movement  | Boom Speeds                  |
|----------------|------------------------------|
| Continuous     | 3.5 RPM                      |
| 0 - 70 Degrees | 15 Seconds                   |
| 40 Feet        | 22 Seconds                   |
|                | Continuous<br>0 - 70 Degrees |

#### **Boom Assembly:**

Boom assembly equipped with bearing pads. Double-acting hydraulic cylinders, equipped with a holding valve, extend and retract the second and third boom sections. Double runs of high strength leaf chain extend and retract the fourth section. Boom length markings and boom angle indicator included on each side of boom. Twin, double-acting hydraulic cylinders control the boom elevation and are equipped with direct-connected holding valves.

#### **Boom Rotation:**

Heavy-duty ball bearing rotation gear with external teeth. Rotation is powered by hydraulic motor and compound planetary gear drive. A spring-applied hydraulically released brake and an overrunning load valve are provided. Hydraulic centerpost and electric slip rings allow continuous rotation.

#### **Boom Hoist:**

Turret Mounted Hydraulic Powered

Bare Drum Line Pull 10,000 Pounds

Wire Rope 375 Feet of 1/2 inch dia.

Line Speed:

Bare Drum 320 FPM Full Drum 412 FPM

#### 4-Part-Line Sheave Block:

Double sheave block for four-part-line requirements.

#### Anti-Two-Block Device:

Prevents damage to hoist rope and/or machine components from accidentally pulling load hook against boom tip.

## Listed below are brief descriptions of each option available for the RT-300-2B Rough Terrain Crane. Consult the RT-300-2B Engineering Spec for additional information on each option.

## RT-300-2B - Rough Terrain Crane with Fold Down Out outriggers.

## RT-300-2BO - Rough Terrain Crane with Out and Down outriggers.

#### **ENGINE OPTIONS:**

#### **Cummins Diesel Engine**

Model BT5.9, turharged diesel engine.

#### **Engine Heater**

Engine coolant heater installed to circulate warm water through engine, plugs into 120 volt AC.

#### **Ether Injection System**

Ether starting aid controlled by switch in operator's compartment and injects ether directly into intake manifold.

#### **Engine Shutdown Gauges**

Shuts engine off when high water temperature or low engine oil pressure occurs.

#### **Engine Side Covers**

Quick detach, to fit fixed hood and grille.

#### TIRE OPTIONS:

#### Spare Wheel & Tire:

17.5 x 25, 20-Ply Tire

#### **CHASSIS OPTIONS:**

#### **Auxiliary Front Winch**

Mounted on front outrigger housing, hydraulically driven with control in operator's compartment. Requires Overhead Guard Option.

#### **Auxiliary Front Winch Plumbing**

Control valve and all plumbing to quick connect fitting at front of chassis for auxiliary front winch. Requires Overhead Guard Option.

#### Lifting Eyes

Lifting eyes on corners of chassis and turntable so slings can be attached for lifting crane.

#### **Towing Eyes**

Consists of four eyes, two on front and two on rear for towing.

#### Spreader Bar & Sling Assembly:

Spreader bar with four wire rope assemblies to allow balanced lifting of crane. Must be used with lifting eyes (ordered separately).

#### Pintle Hook, Front

Pintle hook mounted on front outrigger housing, 24 ton capacity. Not available with front winch option.

### CHASSIS OPTIONS: (Contíd) Pintle Hook, Rear

Pintle hook mounted on rear outrigger housing, 24 ton capacity.

### OPERATOR'S COMPARTMENT OPTIONS:

#### **All Weather Cab**

Consists of rigid-mounted canopy section and two removable hinged doors. Includes heater with two-speed fan, 12-volt electric windshield wiper. Defroster fan included.

#### Window Wiper - Top Window

12-volt electric wiper on top window operated with its own switch.

#### **Operator Guard**

Tubular steel weldment with heavy expanded steel mesh top & grille front section.

### Operator's Suspension Seat Seats Inc. - Cloth

Full-suspension with adjustments for height, tilt, fore/aft, operator weight with armrest angle adjustment.

### Operator's Suspension Seat Seats Inc. - Vinyl

Full-suspension with adjustments for height, tilt, fore/aft, operator weight with armrest angle adjustment.

## Operator's Suspension Seat Grammer

Full-suspension with adjustments for height, tilt, fore/aft, operator weight, lumbar support with armrest angle adjustment.

#### **Noise Reduction Kit**

Consists of noise reduction panel over control valves and grille on front of unit to vent heat from valve area.

#### **Air Conditioning**

Air Conditioning with R134 coolant.

#### **ELECTRICAL OPTIONS:**

#### **Outrigger Alarm System**

Two-tone alarm is activated when "outrigger down" controls are operated.

#### Strobe Light

Yellow strobe light mounted on top of engine hood for high visibility.

#### Lighting Kit

Includes two modular, dual-beam headlights with turn signal lights. Taillights with brake & turn signal lights. Back-up lights & lights installed in back of instrument gauges.

## ELECTRICAL OPTIONS: (Contid) Amber Rotating Beacon

Amber rotating beacon mounted on top of engine hood for high visibility.

#### **Boom Work Lights**

One halogen work light mounted to boom to light boom tip and one work light mounted to turret to light ground under boom tip.

#### **BOOM ATTACHMENT OPTIONS:**

#### **Angle Indicator**

Large pointer and quadrant located under boom, in addition to standard indicators.

#### 20 Ft. Offsettable Boom Extension

Boom stowable. Offsets include 0 (in-line), 15 or 30 degree. Downhaul weight & hook option required.

#### **Downhaul Weight & Hook**

Downhaul weight & 5-ton swivel hook to use with existing wedge socket on 1/2 inch or 9/16 inch load line.

#### Wire Rope - Spin Resistant

9/16 inch dia., rotation-resistant load line, 450 feet long. Includes 5-part adapter for existing 4-part sheave block.

#### **Load Moment Indicator**

Warns operator of impending overload with audible and visual signals. Prevents overload by stopping boom functions that cause overloads. Readouts for load, boom angle, boom length and load radius.

#### **Load Indicator**

Includes 3-sheave load sensor on top of boom and readout box on top of instrument panel.

Should you, as the end user, require an option or special equipment on your RT-300-2B or RT-300-2BO that is not listed on our sales literature, please contact your dealer salesperson or the factory to receive a special quoted price.

# RT-300-B



**IC-20** 



**IC-80** 



IC-35



IC-200-3D

