

# National Series 600C



**A heavy-duty telescoping crane from National,  
America's truck-mounted hydraulic crane leader**

- Maximum Capacity: 34,000 Pounds (15.4 Metric Tons)
- Maximum Vertical Reach: 134 Feet (40.9 Meters)

## Boom and Jib Combinations

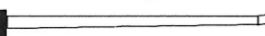
671C: 27-71 ft. three section



671C: 27-71 ft. three section



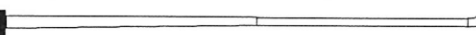
6FJ24: 24 ft. single section



671C: 27-71 ft. three section



6FJ43M: 24-43 ft. manual pullout



681C: 24-81 ft. four section



681C: 24-81 ft. four section



6FJ24: 24 ft. single section



681C: 24-81 ft. four section



6FJ43M: 24-43 ft. manual pullout



## Reaches to 134 feet (40.8m)!

The Series 600C is available in two basic models:

### Model 671C

Model 671C comes with a 27-71 foot (8.2-21.6m) three section boom.

This model reaches to a height of 124 feet (37.8m) when equipped with the 43-foot (13.1m) jib. It reaches to a height of 81 feet (24.7m) hydraulically.

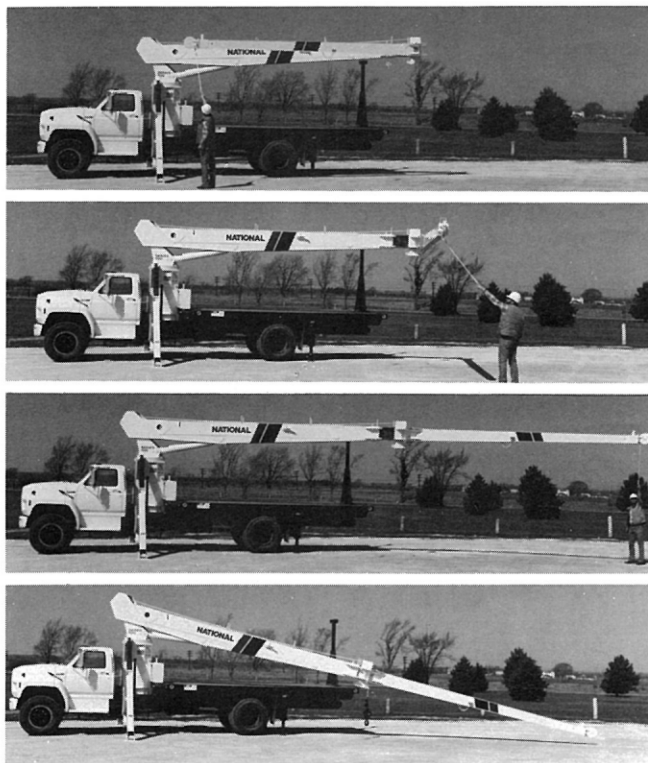
### Model 681C

Model 681 comes with a 24-81 foot (7.3-24.7m) four section boom. This model reaches to a height of 134 feet (40.8m) when equipped with the 43-foot (13.1m) jib. It reaches to a height of 91 feet (27.7m) hydraulically.

Both models are available with the optional jibs shown in the chart above.



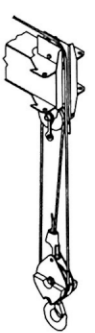


*Note: An angling jib (6FJ15A) is available for Models 671C and 681C.*

*Other boom lengths are available on special request.*



*This sequence of photos shows how a National jib folds out into a working position.*



<b>National Series 600C Winch Data</b>			1 Part Line	2 Part Line	3 Part Line	4 Part Line	5 Part Line
<b>Caution</b>							
<ul style="list-style-type: none"> <li>Do not deadhead lineblock against boom tip when extending boom.</li> <li>Keep at least three wraps of loadline on drum at all times.</li> <li>Use only 9/16" diameter rotation resistant cable with 38,500 pounds breaking strength on this machine.</li> <li>Maximum capacity with optional "Burst-of-Speed" is 3,000 pounds.</li> </ul>							
Winch	Cable Supplied	Average Breaking Strength	Lift and Speed	Lift and Speed	Lift and Speed	Lift and Speed	Lift and Speed
Standard Planetary Winch	9/16" diameter rotation resistant 19x7 IWRC	38,500 lbs.	7,700 lbs. 164 fpm	15,400 lbs. 82 fpm	23,100 lbs. 55 fpm	30,800 lbs. 41 fpm	34,000 lbs. 33 fpm
	Optional 9/16" diameter 6x25 IWRC	29,750 lbs.	7,700 lbs. 164 fpm	15,400 lbs. 82 fpm	23,100 lbs. 55 fpm	30,800 lbs. 41 fpm	34,000 lbs. 33 fpm
With "Burst-of-Speed" Feature	Same as corresponding cable data shown above		3,000 lbs. 265 fpm	6,000 lbs. 133 fpm	9,000 lbs. 88 fpm	12,000 lbs. 66 fpm	15,000 lbs. 53 fpm

All winch pulls and speeds are shown on the fourth layer. Winch pulls would increase on the first, second, and third layers. Winch line pulls would decrease on the first, second, and third layers. Winch line pulls may be limited by the winch capacity or the cable safety factor. These are shown below:

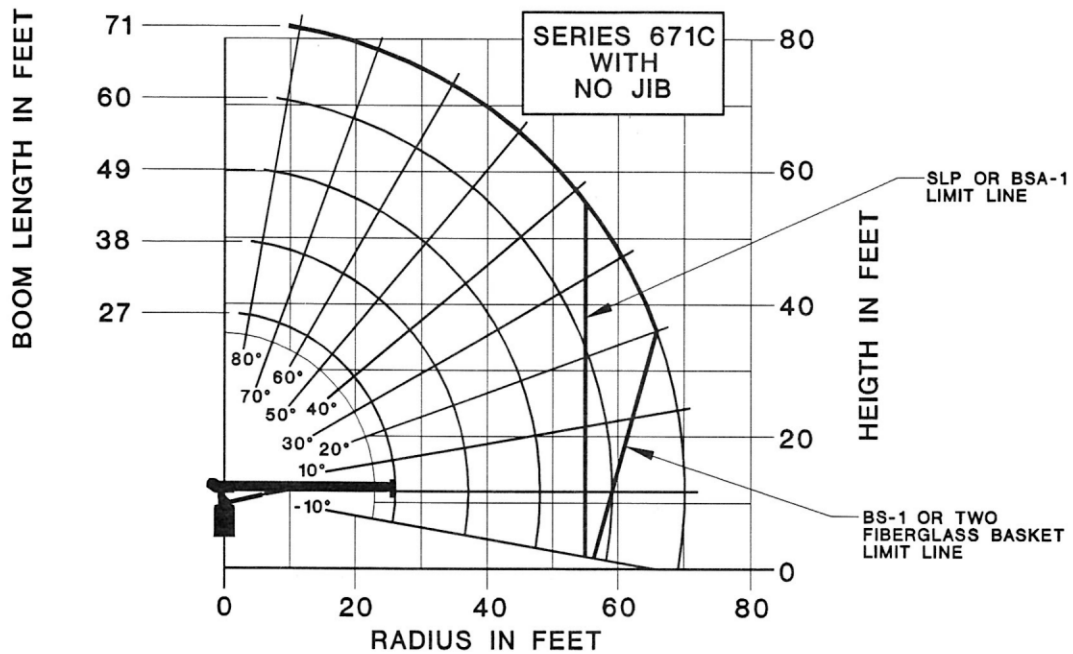
Winch	Bare Drum Pull	Allowable Cable Pull
With standard rotation resistant rope.....	10,000 pounds.....	7,700 pounds
With optional 6x25 IWRC rope.....	10,000 pounds.....	8,400 pounds

**Do not operate crane booms, jib extensions, any accessories, or loads within 10 feet (3m) of live power lines or other conductors of electricity.**

1. Load ratings shown on the following load rating charts are maximum allowable loads with the outriggers properly extended on a firm, level surface and the crane leveled and mounted on a factory-recommended truck.  
2. Always level the crane with the level

indicator located on the crane frame.  
3. The operator must reduce loads to allow for factors such as wind, ground conditions, operating speeds and the effect of freely suspended loads.  
4. Overloading this crane may cause structural collapse or instability.

5. Weights of any accessories attached to the boom or loadline must be deducted from the load chart capacities.  
6. Do not exceed jib capacities at any reduced boom lengths.

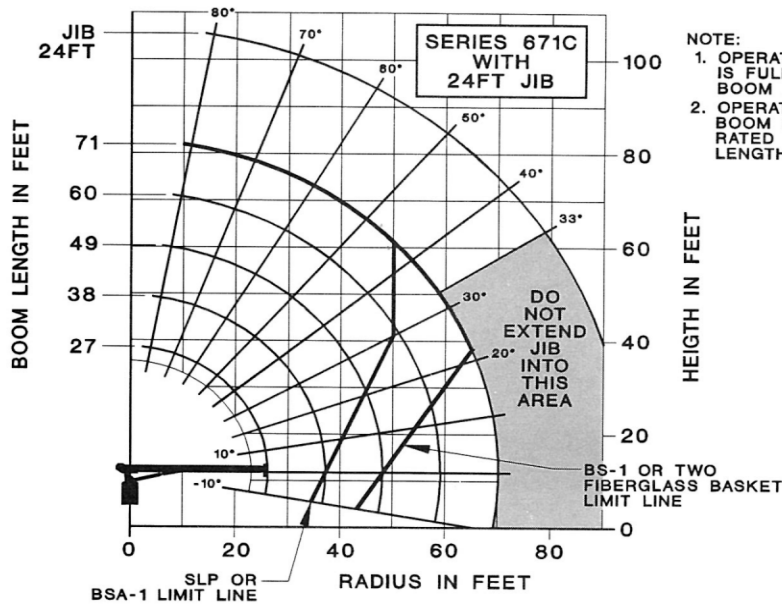


LOAD RATINGS											LOADLINE EQUIPMENT DEDUCT
LOAD RADIUS (FEET)	LOADED BOOM ANGLE	27FT BOOM (LBS)	LOADED BOOM ANGLE	38FT BOOM (LBS)	LOADED BOOM ANGLE	49FT BOOM (LBS)	LOADED BOOM ANGLE	60FT BOOM (LBS)	LOADED BOOM ANGLE	71FT BOOM (LBS)	
4.5	80	34,000									DOWNHAUL WEIGHT = 150 ONE SHEAVE BLOCK = 200 TWO SHEAVE BLOCK = 355
8	72	21,500	78	19,500							
10	67	17,900	74.5	16,100	78.5	14,900					
12	62.5	15,400	71.5	13,900	76	12,800	79	11,800			
14	57	13,700	68	12,200	73.5	11,200	77	10,400	79.5	10,000	
16	52	12,300	64.5	10,900	71	9,900	75	9,200	77.5	8,800	
20	39.5	10,000	57	9,000	66	8,200	71.5	7,600	74.5	7,200	
25	17	7,600	49	7,500	60	6,800	66.5	6,200	70.5	5,800	
30			37.5	6,300	53	5,700	61	5,200	66	4,900	
35			21	5,000	44.5	4,900	55	4,500	61.5	4,200	
40					35	4,200	49	3,900	56.5	3,800	
45					22	3,500	42	3,300	51.5	3,150	
50							34	2,900	46	2,750	
55							23	2,500	40	2,400	
60									33	2,100	
65									23.5	1,750	
70									4	1,100	
	0	6,000	0	3,600	0	2,400	0	1,550	0	950	



The capacities shown will be reduced when accessories are attached to the boom or loadline.

Note: Rated loads do not exceed 85% of the tipping load. Structural strength ratings in the chart below are shaded.



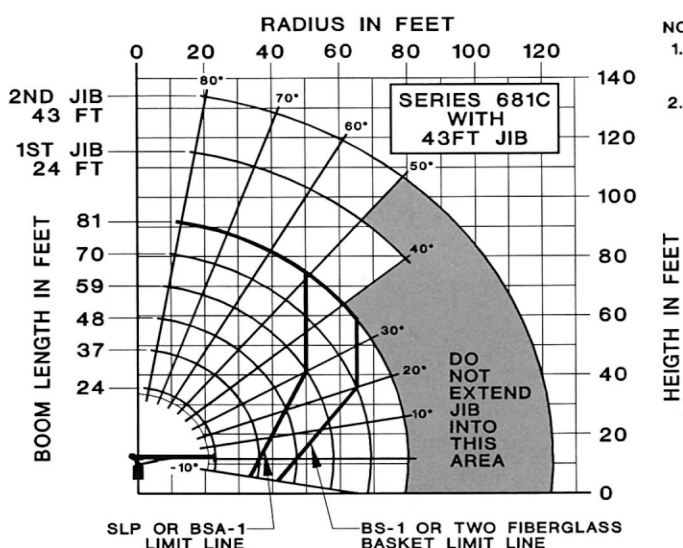
NOTE:

1. OPERATE WITH JIB BY RADIUS, WHEN MAIN BOOM IS FULLY EXTENDED. IF NECESSARY INCREASE BOOM ANGLE TO MAINTAIN LOADED RADIUS.
2. OPERATE WITH JIB BY BOOM ANGLE WHEN MAIN BOOM IS NOT FULLY EXTENDED. DO NOT EXCEED RATED JIB CAPACITIES AT ANY REDUCED BOOM LENGTHS.

JIB LOAD RATINGS		
LOAD RADIUS (FEET)	LOADED BOOM ANGLE	24FT JIB (LBS)
20	79	4,600
25	76	4,300
30	73	3,800
35	69.5	3,100
40	66.5	2,650
45	63	2,250
50	59.5	1,950
55	56	1,700
60	52	1,450
65	48	1,250
70	43.5	1,050
75	39	850
80	33.5	650

BOOM LOAD RATINGS											LOADLINE EQUIPMENT DEDUCT
LOAD RADIUS (FEET)	LOADED BOOM ANGLE	27FT BOOM (LBS)	LOADED BOOM ANGLE	38FT BOOM (LBS)	LOADED BOOM ANGLE	49FT BOOM (LBS)	LOADED BOOM ANGLE	60FT BOOM (LBS)	LOADED BOOM ANGLE	71FT BOOM (LBS)	
4.5	79.5	34,000									DOWNSHAUL WEIGHT = 150 ONE SHEAVE BLOCK = 200 TWO SHEAVE BLOCK = 355
8	71.5	20,750	77.5	19,000							
10	67	17,250	74.5	15,600	78.5	14,350					
12	62	14,950	71	13,400	76	12,150	79	11,250			
14	57	13,050	68	11,700	73.5	10,600	77	9,800	79.5	9,450	
16	51.5	11,650	64.5	10,400	71	9,400	75	8,700	77.5	8,250	
20	39	9,450	57.5	8,500	66	7,700	71.5	7,150	74.5	6,750	
25	17	7,100	48.5	7,050	59.5	6,350	66	5,750	70	5,400	
30			37	5,800	52.5	5,300	60.5	4,800	66	4,500	
35			20	4,550	44.5	4,500	55	4,100	61.5	3,900	
40					35	3,850	48.5	3,550	56.5	3,300	
45					21.5	3,100	41.5	3,100	51.5	2,900	
50							33.5	2,650	46	2,550	
55							22.5	2,200	40	2,200	
60									32.5	1,900	
65									23	1,600	
70									1.5	850	
	0	5,400	0	3,200	0	2,000	0	1,300	0	800	

## National Series 600C Load Rating Charts (continued)



**NOTE:**

1. OPERATE WITH JIB BY RADIUS, WHEN MAIN BOOM IS FULLY EXTENDED. IF NECESSARY INCREASE BOOM ANGLE TO MAINTAIN LOADED RADIUS.
2. OPERATE WITH JIB BY BOOM ANGLE WHEN MAIN BOOM IS NOT FULLY EXTENDED. DO NOT EXCEED RATED JIB CAPACITIES AT ANY REDUCED BOOM LENGTHS.

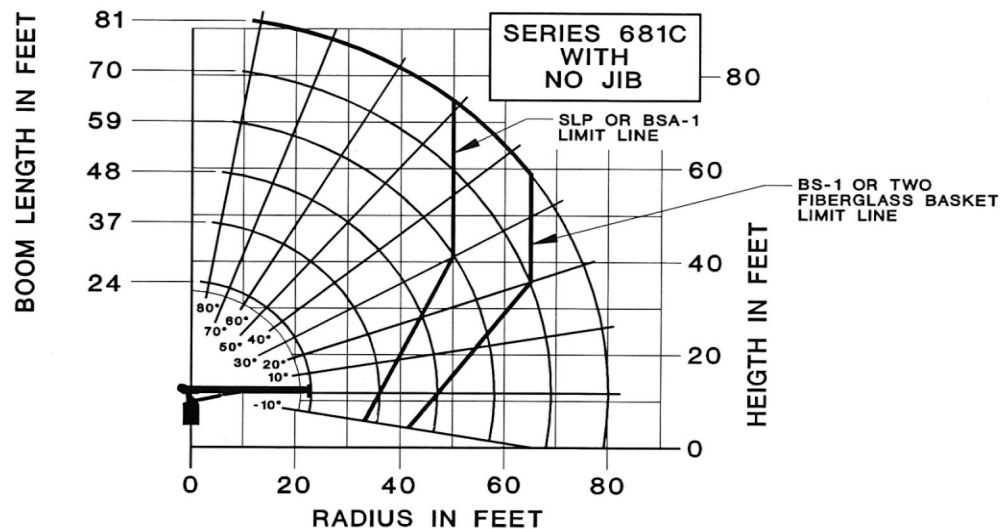
JIB LOAD RATINGS				
LOAD RADIUS (FEET)	LOADED BOOM ANGLE	24FT JIB (LBS)	LOADED BOOM ANGLE	43FT JIB (LBS)
20	78	3,200		
25	77.5	2,800	79.5	2,000
30	74.5	2,500	77.5	1,700
35	72	2,200	75	1,500
40	69	1,900	73	1,300
45	66	1,600	70.5	1,100
50	63	1,400	68	1,000
55	60	1,200	65.5	900
60	57	1,000	63	800
65	53.5	800	60.5	700
70	50	700	57.5	600
75	46	600		

BOOM LOAD RATINGS													LOADLINE EQUIPMENT DEDUCT
LOAD RADIUS (FEET)	LOADED BOOM ANGLE	24FT BOOM (LBS)	LOADED BOOM ANGLE	37FT BOOM (LBS)	LOADED BOOM ANGLE	48FT BOOM (LBS)	LOADED BOOM ANGLE	59FT BOOM (LBS)	LOADED BOOM ANGLE	70FT BOOM (LBS)	LOADED BOOM ANGLE	81FT BOOM (LBS)	
4.5	78.5	34,000											DOWNHAUL WEIGHT = 150  ONE SHEAVE BLOCK = 200  TWO SHEAVE BLOCK = 355
8	69.5	22,050	77.5	19,350									
10	64	18,250	74.5	15,850	78.5	14,350							
12	58	15,650	71	13,600	76	12,150	79	10,950					
14	52	13,850	67.5	11,900	73.5	10,650	77	9,550	79.5	8,800			
16	45.5	12,350	64	10,600	71	9,450	75	8,500	78	7,800			
20	28.5	9,750	58.5	8,700	65.5	7,750	71	7,050	74.5	6,400	77	6,150	
25			47	7,250	59	6,400	66	5,700	70.5	5,200	73.5	4,950	
30			35	5,950	51.5	5,350	60.5	4,800	66	4,350	69.5	4,100	
35			15	4,500	43.5	4,550	54.5	4,100	61	3,750	65.5	3,500	
40					33	3,850	48	3,550	56.5	3,250	61.5	3,050	
45					18	3,100	40.5	3,100	51	2,850	57.5	2,650	
50							32	2,675	45.5	2,500	53	2,350	
55							20	2,200	39	2,200	48	2,050	
60									31.5	1,850	43	1,800	
65									21.5	1,550	37.5	1,550	
70											30.5	1,300	
75											22	1,050	
80											3.5	550	
	0	6,400	0	3,450	0	2,150	0	1,350	0	800			



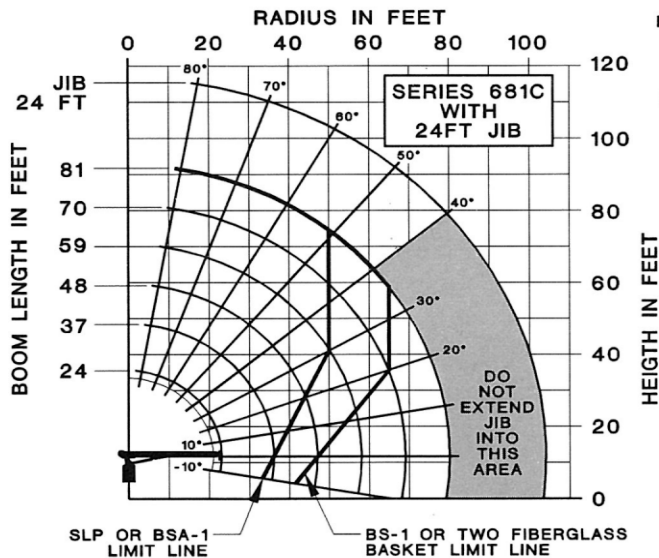
The capacities shown will be reduced when accessories are attached to the boom or loadline.

Note: Rated loads do not exceed 85% of the tipping load. Structural strength ratings in the chart below are shaded.



LOAD RATINGS												LOADLINE EQUIPMENT DEDUCT	
LOAD RADIUS (FEET)	LOADED BOOM ANGLE	24FT BOOM (LBS)	LOADED BOOM ANGLE	37FT BOOM (LBS)	LOADED BOOM ANGLE	48FT BOOM (LBS)	LOADED BOOM ANGLE	59FT BOOM (LBS)	LOADED BOOM ANGLE	70FT BOOM (LBS)	LOADED BOOM ANGLE		81FT BOOM (LBS)
4.5	79	34,000											DOWNHAUL WEIGHT = 150  ONE SHEAVE BLOCK = 200  TWO SHEAVE BLOCK = 355
8	69.5	22,500	78	19,800									
10	64	18,700	74.5	16,200	78.5	14,800							
12	58.5	16,100	71	13,900	76	12,400	79.5	11,500					
14	52.5	14,300	67.5	12,200	73.5	10,900	77	9,800	80	9,200			
16	45.5	12,700	64	10,900	71	9,700	75	8,800	78	8,000			
20	28.5	10,100	57	9,000	66	8,000	71.5	7,300	75	6,800	77	6,500	
25			47.5	7,500	59.5	6,800	66.5	6,000	70.5	5,400	73.5	5,200	
30			35.5	6,200	52	5,500	60	5,000	66.5	4,500	70	4,400	
35			16	4,800	43.5	4,700	55	4,300	61.5	3,900	66	3,700	
40					33.5	4,000	48.5	3,700	56.5	3,400	62	3,200	
45					19	3,250	41	3,200	51.5	2,900	58	2,800	
50							32.5	2,750	45.5	2,600	53.5	2,450	
55							20.5	2,300	39.5	2,200	48.5	2,100	
60									32	1,850	43.5	1,800	
65									22	1,550	37.5	1,550	
70											31	1,300	
75											22.5	1,050	
80											3.5	550	
	0	6,400	0	3,800	0	2,250	0	1,400	0	800			

## National Series 600C Load Rating Charts (continued)



**NOTE:**

1. OPERATE WITH JIB BY RADIUS, WHEN MAIN BOOM IS FULLY EXTENDED. IF NECESSARY INCREASE BOOM ANGLE TO MAINTAIN LOADED RADIUS.
2. OPERATE WITH JIB BY BOOM ANGLE WHEN MAIN BOOM IS NOT FULLY EXTENDED. DO NOT EXCEED RATED JIB CAPACITIES AT ANY REDUCED BOOM LENGTHS.

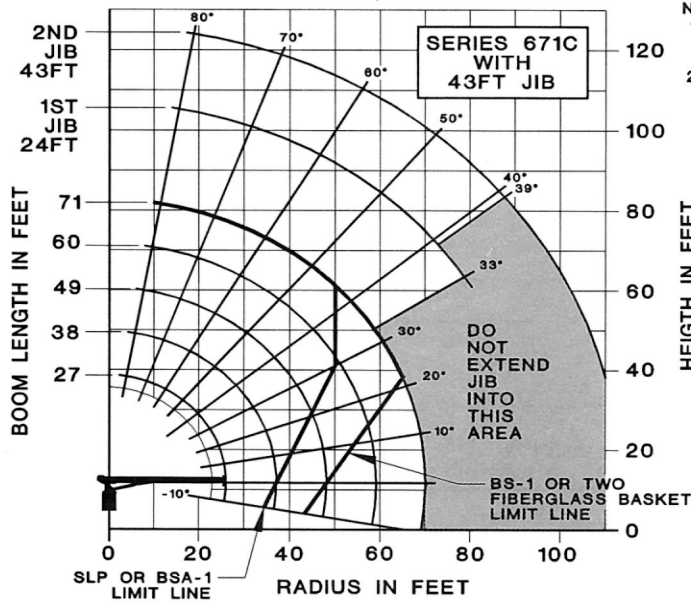
JIB LOAD RATINGS		
LOAD RADIUS (FEET)	LOADED BOOM ANGLE	24FT JIB (LBS)
20	78	3,200
25	77.5	2,800
30	74.5	2,500
35	72	2,200
40	69	1,900
45	66	1,600
50	63	1,400
55	60	1,200
60	57	1,000
65	53.5	800
70	50	700
75	46	600

BOOM LOAD RATINGS													LOADLINE EQUIPMENT DEDUCT
LOAD RADIUS (FEET)	LOADED BOOM ANGLE	24FT BOOM (LBS)	LOADED BOOM ANGLE	37FT BOOM (LBS)	LOADED BOOM ANGLE	48FT BOOM (LBS)	LOADED BOOM ANGLE	59FT BOOM (LBS)	LOADED BOOM ANGLE	70FT BOOM (LBS)	LOADED BOOM ANGLE	81FT BOOM (LBS)	
4.5	78.5	34,000											DOWNHAUL WEIGHT = 150  ONE SHEAVE BLOCK = 200  TWO SHEAVE BLOCK = 355
8	69.5	22,050	77.5	19,350									
10	64	18,250	74.5	15,850	78.5	14,350							
12	58	15,650	71	13,600	76	12,150	79	10,950					
14	52	13,850	67.5	11,900	73.5	10,650	77	9,550	79.5	8,800			
16	45.5	12,350	64	10,600	71	9,450	75	8,500	78	7,800			
20	28.5	9,750	56.5	8,700	65.5	7,750	71	7,050	74.5	6,400	77	6,150	
25			47	7,250	59	6,400	66	5,700	70.5	5,200	73.5	4,950	
30			35	5,950	51.5	5,350	60.5	4,800	66	4,350	69.5	4,100	
35			15	4,500	43.5	4,550	54.5	4,100	61	3,750	65.5	3,500	
40					33	3,850	48	3,550	56.5	3,250	61.5	3,050	
45					18	3,100	40.5	3,100	51	2,850	57.5	2,650	
50							32	2,675	45.5	2,500	53	2,350	
55							20	2,200	39	2,200	48	2,050	
60									31.5	1,850	43	1,800	
65									21.5	1,550	37.5	1,550	
70											30.5	1,300	
75											22	1,050	
80											3.5	550	
	0	6,400	0	3,450	0	2,150	0	1,350	0	800			



The capacities shown will be reduced when accessories are attached to the boom or loadline.

Note: Rated loads do not exceed 85% of the tipping load. Structural strength ratings in the chart below are shaded.



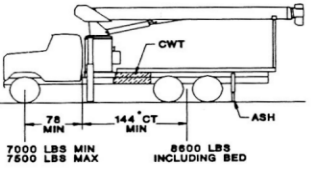
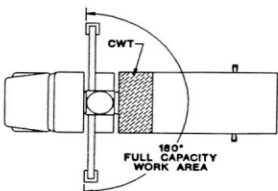
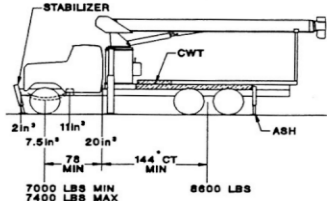
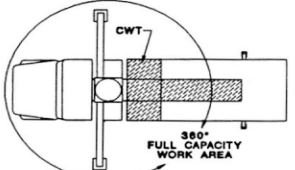
**NOTE:**

1. OPERATE WITH JIB BY RADIUS, WHEN MAIN BOOM IS FULLY EXTENDED. IF NECESSARY INCREASE BOOM ANGLE TO MAINTAIN LOADED RADIUS.
2. OPERATE WITH JIB BY BOOM ANGLE WHEN MAIN BOOM IS NOT FULLY EXTENDED. DO NOT EXCEED RATED JIB CAPACITIES AT ANY REDUCED BOOM LENGTHS.

JIB LOAD RATINGS				
LOAD RADIUS (FEET)	LOADED BOOM ANGLE	24FT JIB (LBS)	LOADED BOOM ANGLE	43FT JIB (LBS)
20	79	4,800		
25	76	4,300	78.5	2,900
30	73	3,800	76.5	2,650
35	69.5	3,100	74	2,400
40	66.5	2,650	71.5	2,200
45	63	2,250	69	2,000
50	59.5	1,950	66	1,800
55	56	1,700	63	1,600
60	52	1,450	60	1,400
65	48	1,250	57	1,250
70	43.5	1,050	54	1,100
75	39	850	51	950
80	33.5	650	47	800
85			43.5	700
90			39.5	600

BOOM LOAD RATINGS											LOADLINE EQUIPMENT DEDUCT
LOAD RADIUS (FEET)	LOADED BOOM ANGLE	27FT BOOM (LBS)	LOADED BOOM ANGLE	38FT BOOM (LBS)	LOADED BOOM ANGLE	49FT BOOM (LBS)	LOADED BOOM ANGLE	60FT BOOM (LBS)	LOADED BOOM ANGLE	71FT BOOM (LBS)	DOWNHAUL WEIGHT = 150 ONE SHEAVE BLOCK = 200 TWO SHEAVE BLOCK = 355
4.5	79.5	34,000									
8	71.5	20,750	77.5	19,000							
10	67	17,250	74.5	15,600	78.5	14,350					
12	62	14,950	71	13,400	76	12,150	79	11,250			
14	57	13,050	68	11,700	73.5	10,600	77	9,800	79.5	9,450	
16	51.5	11,650	64.5	10,400	71	9,400	75	8,700	77.5	8,250	
20	39	9,450	57.5	8,500	66	7,700	71.5	7,150	74.5	6,750	
25	17	7,100	48.5	7,050	59.5	6,350	66	5,750	70	5,400	
30			37	5,800	52.5	5,300	60.5	4,800	66	4,500	
35			20	4,550	44.5	4,500	55	4,100	61.5	3,900	
40					35	3,850	48.5	3,550	56.5	3,300	
45					21.5	3,100	41.5	3,100	51.5	2,900	
50							33.5	2,650	46	2,550	
55							22.5	2,200	40	2,200	
60									32.5	1,900	
65									23	1,600	
70									1.5	850	
	0	5,400	0	3,200	0	2,000	0	1,300	0	800	

## National Series 600C Truck Specifications

Mounting Configurations	Configuration 1 with Torsion Box	Configuration 2 with Torsion Box
The versatility of the Series 600C can be enhanced by the mounting configurations described at the right. The configurations are based on the Series 600C with an 85% stability factor. The complete unit must be installed in accordance with factory requirements and a test performed to determine actual stability and counterweight requirements since individual truck chassis vary.	This configuration is the least expensive method for the Series 600C. This mount, with the crane mounted behind the cab, requires the least weight of all mounts for stability, thus, you can haul larger payloads on your truck. It requires standard subbase and rear (ASH) stabilizers.	This mount requires front SFO stabilizer to give the machine full capacity 360° around the truck. Care must be taken in the selection of the truck. It must meet the minimum requirements below. The front stabilizer gives the machine a solid base, helping the operator control the loads precisely. Requires front SFO and rear ASH stabilizers and a subbase. The truck frame must be made from 110,000 PSI steel. See "Truck Frame and Mounting Bolt Requirements for Front Stabilizer" statement on page 13. Contact the factory for details.
Stable	180°	360°
Gross Axle Weight Rating (GAWR), front	12,000 lbs.	12,000 lbs.
Gross Axle Weight Rating (GAWR), rear	34,000 lbs.	34,000 lbs.
Wheelbase (WB)	681C: 222"; 671C: 234"	681C: 222"; 671C: 234"
Cab to Axle/trunnion (CA/CT)	681C: 144"; 671C: 156"	681C: 144"; 671C: 156"
Frame Section Modulus (SM) under crane: 50,000 PSI, or	35.0 inch <sup>3</sup>	Not applicable (see note above)
110,000 PSI	15.9 inch <sup>3</sup>	20.0 inch <sup>3</sup>
Frame Section Modulus (SM) over rear stabilizers: 50,000 PSI or	17.0 inch <sup>3</sup>	Not applicable (see note above)
110,000 PSI	13.0 inch <sup>3</sup>	13.0 inch <sup>3</sup>
Stability Weight, Front	7,000 lbs. minimum; 7,500 lbs. maximum*	7,000 lbs. minimum; 7,400 lbs. maximum*
Stability Weight, Rear	8,600 lbs. minimum*	8,600 lbs. minimum*
Estimated Average Final Weight (671C)	31,000 lbs.	31,300 lbs.
<b>Notes:</b> (1) GAWR means Gross Axle Weight Rating and is dependent on all components of the vehicle such as axles, tires, springs, frame, etc. meeting manufacturer's recommendations. <b>Always specify GAWR when purchasing trucks.</b> (2) Minimum axle requirements may increase with use of longer wheelbase, service bodies, diesel engines, or front stabilizers. (3) Diesel engines require variable speed governor and energize-to-run fuel solenoid for smooth crane operation.	 	 

\*Estimated axle scale rates prior to installation of crane, stabilizers, and subbase for 85% stability.



### Configuration 3 with Torsion Box

The advantages of a rear-mounted Series 600C are: (1) allows the operator to effectively use the close-in work area to lift heavier loads; and (2) 360° stability at full-rated load. Hydraulic out-and-down outriggers located behind the cab are necessary to keep the total weight of the unit to a minimum with full stability. Requires front over frame outriggers, rear stabilizer, and heavy-duty rear-mount subbase.

360°

12,000 lbs.

34,000 lbs.

222 inches

156 inches minimum

35.0 inch<sup>3</sup>

15.9 inch<sup>3</sup>

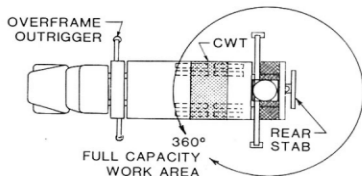
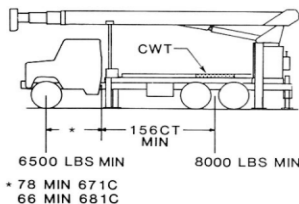
35.0 inch<sup>3</sup>

15.9 inch<sup>3</sup>

7,000 lbs. minimum; 9,100 lbs. maximum\*

8,200 lbs. minimum\*

32,000 lbs.



### Truck Frame and Mounting Bolt Requirements for Front Stabilizer

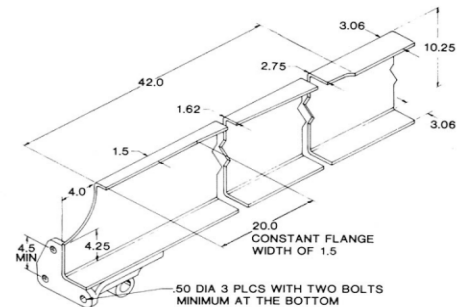
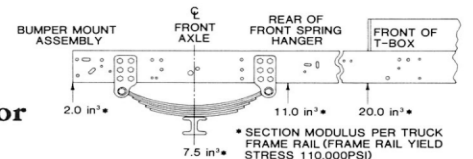
The truck frame must have adequate strength from under the truck frame through the front suspension to the bumper assembly for front stabilizer installation. A truck frame yield strength of 110,000 PSI is required.

The following diagram shows the required section modulus at various stations along the front end of the truck frame for a standard behind-the-cab mount.

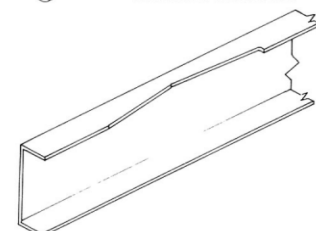
Note in the sample cross sections that the truck frame top flange width is decreased in the engine compartment area. Also note that almost half the truck frame channel is removed at the very front of the frame on the standard truck frame.

In order to safely mount a front stabilizer in place of the normal front bumper, a minimum bolt pattern as shown is required. The bracket must be capable of supporting .50 DIA, Grade 8 bolts to their normal breaking strength. Torque the mounting bolts supplied with the front stabilizer to 110 ft-lb. Do not use spacers between the bumper bracket and the front stabilizer bumper assembly. If the bumper bracket and front of the truck frame do not meet these specifications, an extended frame truck must be used. Contact the factory for details. Details for mounting a stabilizer on an extended frame truck are included in the installation instructions. However, the Section Modulus requirements outlined above do still apply.

### Standard Truck Frame -- for angled single front stabilizer only



### Extended Truck Frame -- for angled or straight down single front stabilizer



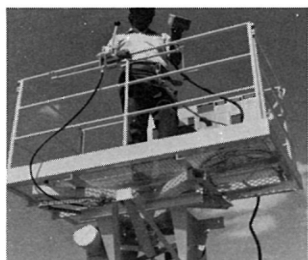
## Personnel Platform

This extra strength 3x6-foot steel platform will carry up to 1,000 pounds and operate at working heights up to 90 feet. It is hydraulically self-leveling and protected by safety valves. Safety harness included. Fold down sides standard.

Optional manual rotation available for precise placement of platform. Easy-to-operate crank rotates the platform through a dependable chain drive. Continuous rotation. Locks in position.

The personnel platform must not be operated on load rated areas where the load chart shows capacities less than 2,000 pounds on Model SLP and 2,200 pounds on Model SLPR. Can be used with angling jib for additional reach.

### Model SLP Model SLPR



## Three Pump System

This optional pump system provides three separate (or individual) hydraulic circuits for independent operation of winch, swing, and crane functions. The option increases productivity on high cycle jobs and facilitates the ease of operation.

## Stabilizers/Outriggers

We offer a complete range of front and rear stabilizers with hydraulic vertical and horizontal motion. All cylinders are fully enclosed for protection against dirt and on-the-job damage.

### Stabilizers

Vertical travel.....	20"	25.5"	25"
Ground penetration (38" frame height).....	8"	10"	13"
Operation.....	All-hydraulic	All-hydraulic	All-hydraulic
Span.....	10'	14'	Single
Controls.....	Stabilizers shown above can be operated from either control station		

### Cross-frame Outriggers

Extended span.....	15'6"
Retracted span.....	7'11"
Vertical travel	
Over-frame.....	25"
Under-frame.....	18"
Ground penetration (38" frame height)....	10"
Mounting space	
Outrigger only.....	24"

### Model 6HO

*\*The SFOA is a single front-mounted hydraulic stabilizer. It is designed to lift the vehicle and will provide stability for the vehicle after it has been leveled.*

### Hydraulic Oil Cooler

Automatic hydraulic device designed to cool the hydraulic oil under high-cycle operation.

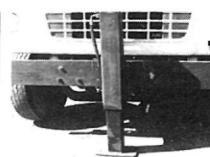
### Model HOC



**Rear Mounted**  
(Model ASH)



**Rear Mounted**  
(Model RSOD)



**Front Mounted\***  
(Model SFOA Fixed)

## Pallet Fork

Turns your Series 600C into a versatile, payload-packing fork lift. Great for delivering palletized material right where you want it. 4,400-pound (1,996-kg) capacity with adjustable throat and teeth. Handles most loads with ease.

**Capacity.....**4,400 lbs. at 20" center

**Throat opening....**41" to 65" (adjustable)

**Tooth length.....**38"

**Tooth width.....**33.5" to 57" Outside to min. max. outside

**Weight.....**350 lbs.

### Model MKF

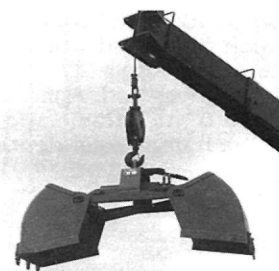
(Manual leveling, adjustable throat)



## Loose Material Clam Bucket

Increase the flexibility of your Series 600C with a National clam bucket. Use this versatile accessory to load or move up to 2/3 cubic yard of loose material with each bite. Hooks easily to loadline, comes with hydraulic hose on automatic reel and quick-connect fittings. Extension hoses are required for use with jibs. Just position the load where you want it and open the bucket.

### Model LMC





## National Series 600C Specifications

### General Construction:

Low-alloy, high tensile, and other steel including T-1, Ex-Ten, Stressproof and Hi-Yield are combined with special low hydrogen welding techniques wherever advantageous. Standard color: painted National Ivory.

### Frame:

Box construction for maximum strength and rigidity.

### Turret:

Fabricated rigid structure, well-braced for stability. Line-bored and machined after welding to ensure proper alignment.

### Rotation:

375°, rotational force 239,532 in-lb. Turret rotation is by hydraulic orbit motor and planetary gearbox driving a pinion. The turret rotates on a ball-bearing race. Spring applied hydraulic release brake provides positive, no-drift lateral positioning.

### Subbase:

Unitized box construction designed to increase torsional stiffness and reduce truck frame requirements. Standard subbase is designed to fit on standard 34" wide truck frame and will accommodate a 20' stringerless bed. Attaches both to truck frame and crane frame. Total depth of subbase is 8.0".

### Outriggers

"A" frame box-type 19'4" span (center of pad at ground level) moves out-and-down, will not bind when raising or lowering truck. Can be positioned to 10.5" below ground level on 38" truck frame height.

### Tilt:

Double-acting hydraulic cylinder raises and lowers boom; butt-mounted safety holding valve prevents boom falling in event of hose failure. Heavy-duty, long-life pivot bearings.

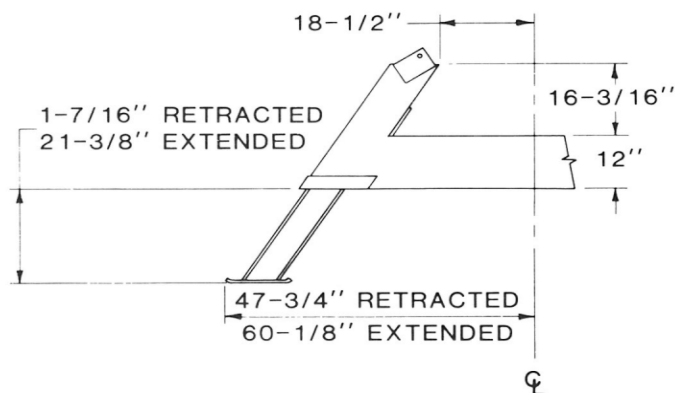
### Boom:

Boxed construction; telescopes proportionally under rated load on nylon plates impregnated with molybdenum disulfide for smooth, long-life operation. Boom cylinder and valves are easily serviced. Heavy-duty, long-life pivot bearings. "Easy Glide" wear pads reduce noisy boom "chatter" and vibration, enhance smooth and quiet operation, are easy to replace, and reduce wear and maintenance.

### Winch:

Hydraulic geroller motor with planetary gear reduction brake and counterbalance valve for "power down" load lowering. 10,000 pounds bare drum single-line pull available with 280 feet of 9/16 inch, 19.25 ton breaking strength loadline. Optional "Burst-of-Speed" control increases payout and pick-up of unloaded cable 60% over normal operating speed.

### Rear Stabilizer



### Pumps:

Tandem Vickers, high-pressure, high-speed balanced vane, replaceable cartridge-type, providing 23 gpm to crane functions and 34 gpm to winch.

### Cylinders:

Shaft packing: Polyurethane cup-type. Shafts: Hi-Yield stress relieved, chrome-plated. Piston sets: Polyurethane U-cups with glass reinforced nylon bearings. Cylinder barrels: Micro-honed tubing and safety check valves.

### Valves:

Four-way, spring-centered, spool-type with low spool force and extra-fine metering notches. Independent relief valves protect hydraulic circuit against overload. Relief valves are set at 2,850 psi (3,050 psi on winch system). Valves located for improved accessibility and ease of service.

### Hose:

All high-pressure hose is wirebraid reinforced, having a minimum safety factor of 4 to 1.

### Operating Speeds:

Winch 3rd wrap: 150 fpm. Boom up and down: 23-27 seconds. Boom out: 47 fpm. Boom in: 49 fpm. Turn: 42 seconds. When using remote control, crane function speeds will be reduced by 40% to assure smooth operation. (Speeds above assume no load with 23 gpm oil flow on boom and 34 gpm on winch).

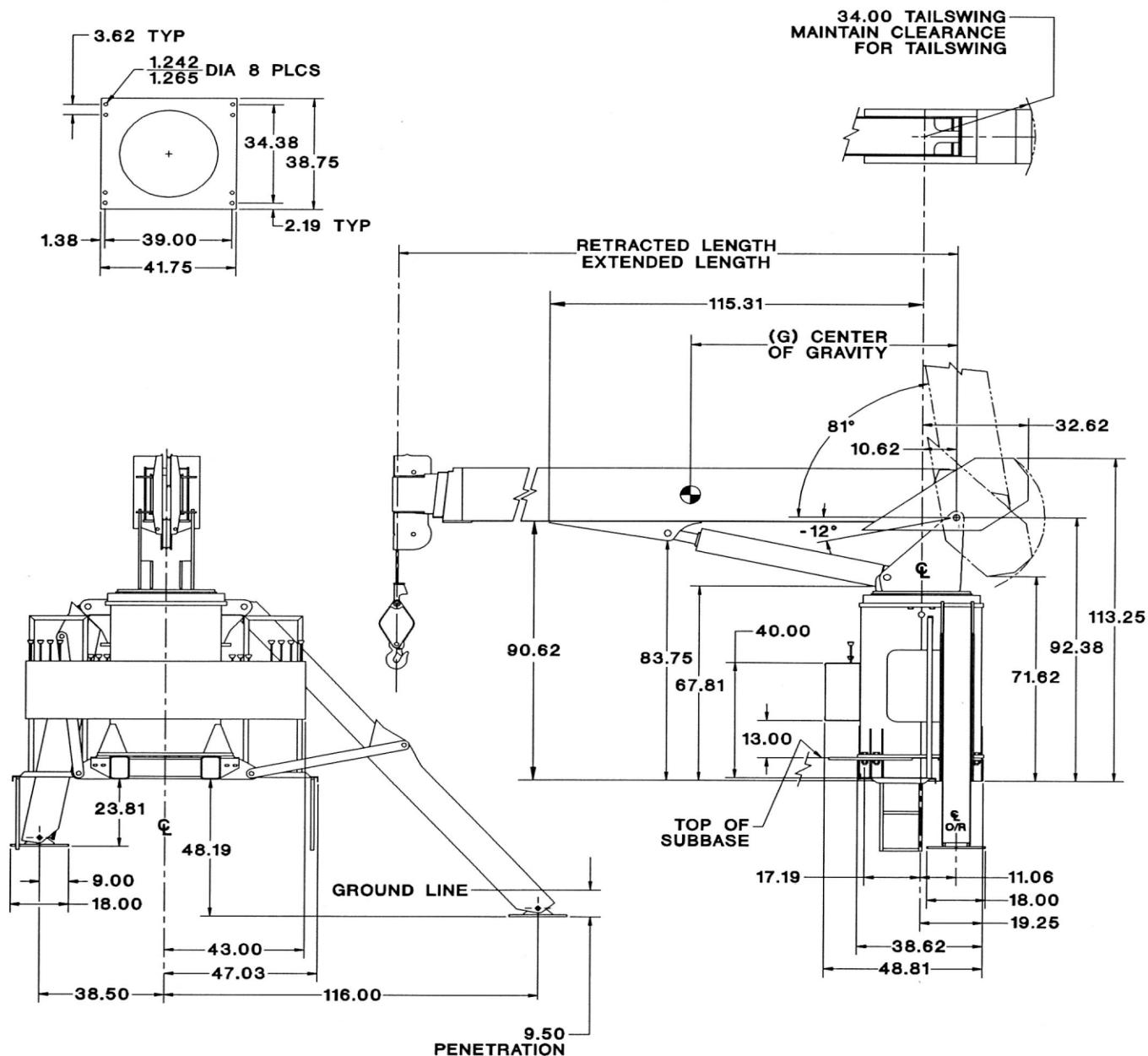
### Oil Tank Capacities:

75-gallon supply tank with breather, clean-out, suction strainers and removable magnetic plug.

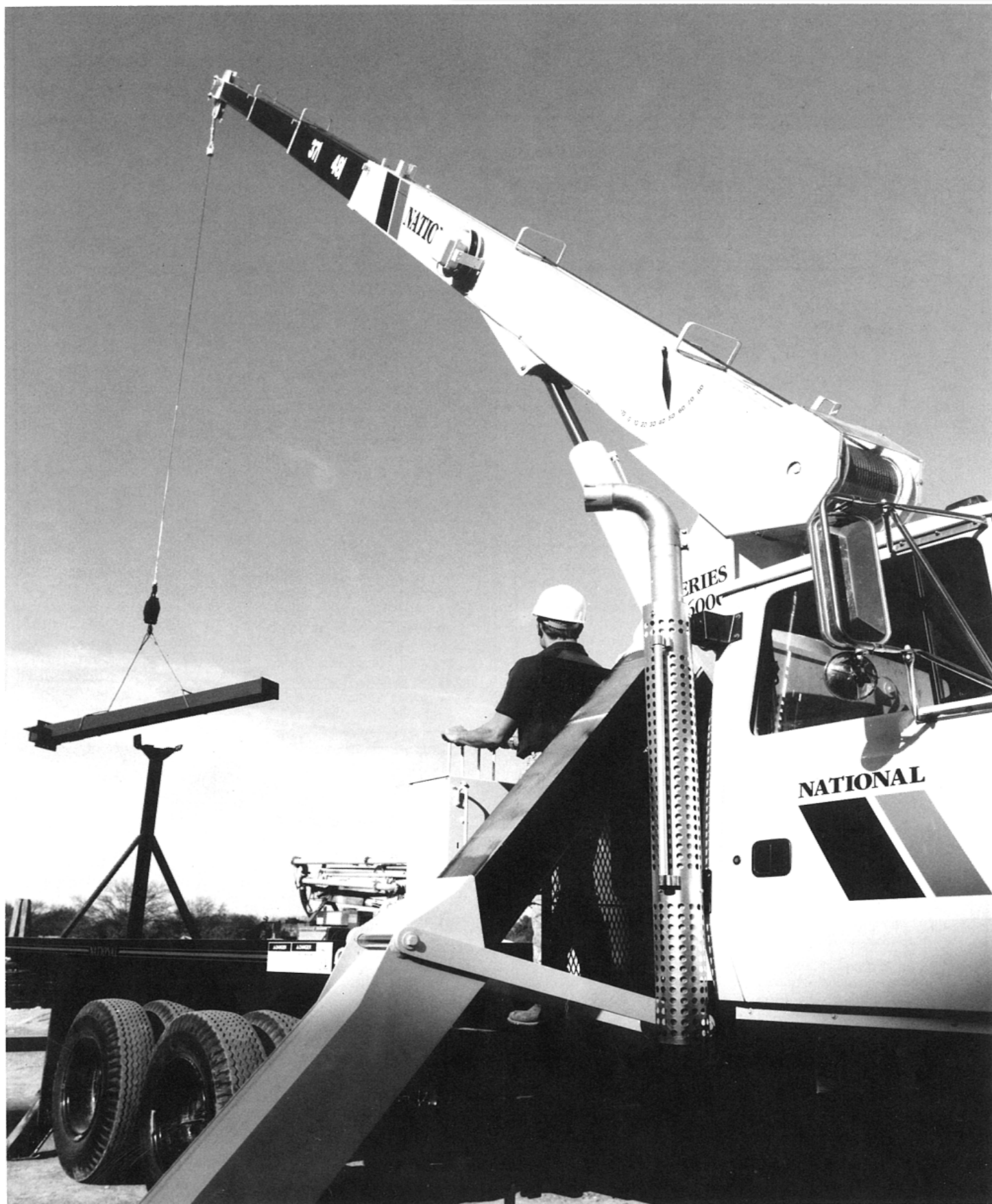
### Dimensional Specification

Series	Retracted Length	Extended Length	G	Dry* Wt/Lb	With Oil* Wt/Lb
681C	24 ft.	81 ft.	82 in.	13,850*	14,550*
671C	27 ft.	71 ft.	85 in.	13,500*	14,150*

\*Weight includes all items except ASH (800#)







## National Series 600C Telescoping Crane



**NATIONAL CRANE**  
A Grove Worldwide Company

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