



For Use in CCO Written Examinations

LOAD CHART MANUAL

DIGGER DERRICK OPERATOR

These charts have been adapted from the original manufacturer's charts for use in CCO Written Examinations.

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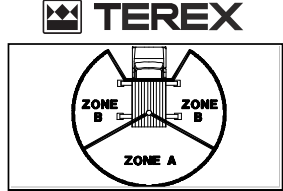


Digger Derrick Load Charts—Terex

DIGGER DERRICK OPERATOR

BOOM ANGLES IN DEGREES	FULLY RETRACTED				2ND SECTION EXTENDED			
	LOAD RADIUS (FT)	SHEAVE HEIGHT (FT)	LOAD CAPACITY (LB)		LOAD RADIUS (FT)	SHEAVE HEIGHT (FT)	LOAD CAPACITY (LB)	
			ZONE A	ZONE B			ZONE A	ZONE B
80	4.1	29.3	18820	18820	5.7	38.1	13650	13650
75	5.7	28.8	14530	14530	8.0	37.5	10120	10120
60	10.2	26.5	9210	9210	15.0	34.3	5860	5860
45	13.9	23.2	7140	7140	20.6	29.5	4360	3970
30	17.1	18.9	5850	5450	24.9	23.4	3530	2800
15	18.7	14.1	5020	4590	27.4	16.4	2920	2320
0	19.0	9.0	4130	4130	28.0	9.0	2290	2220
-20	17.4	2.4	2230	2230	25.8	-0.6	970	970

BOOM ANGLES IN DEGREES	3RD SEC. EXT. -2ND SEC. RET.				2ND & 3RD SEC. EXTENDED				4TH SEC. EXTENDED			
	LOAD RADIUS (FT)	SHEAVE HEIGHT (FT)	LOAD CAPACITY (LB)		LOAD RADIUS (FT)	SHEAVE HEIGHT (FT)	LOAD CAPACITY (LB)		LOAD RADIUS (FT)	SHEAVE HEIGHT (FT)	LOAD CAPACITY (LB)	
			ZONE A	ZONE B			ZONE A	ZONE B			ZONE A	ZONE B
80	5.3	38.5	14700	14700	6.9	47.3	11250	11250				
75	7.7	37.8	10750	10750	10.1	46.5	8010	8010				
60	14.8	34.8	6230	6230	19.3	42.6	4420	4420				
45	20.6	30.0	4680	4280	26.9	36.4	3200	2670				
30	24.9	24.0	3840	3060	32.7	28.5	2540	1860				
15	27.5	17.0	3220	2570	36.2	19.3	2060	1520				
0	28.3	9.6	2580	2460	37.3	9.6	1560	1440				
-20	26.2	-0.1	1280	1280	34.7	-3.2	550	550				



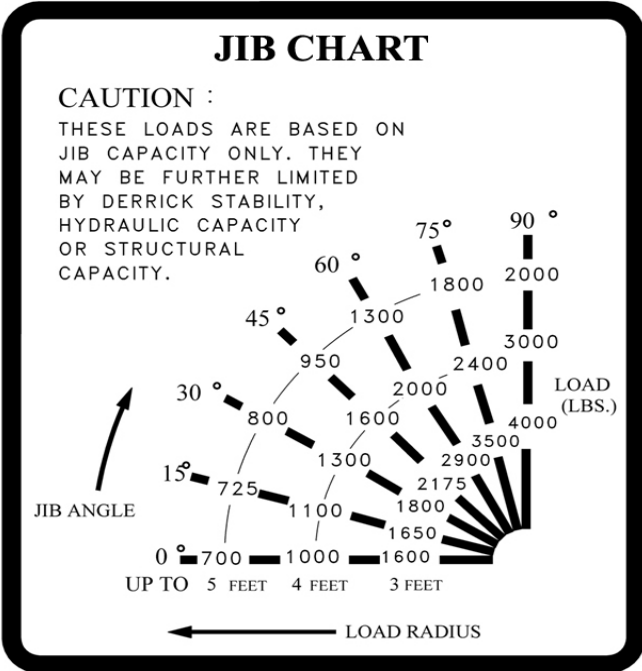
WARNING: DERRICK MUST BE MOUNTED ACCORDING TO TEREX TELELECT INSTALLATION INSTRUCTIONS. IF DERRICK IS MODIFIED IN ANY WAY OR REMOUNTED, TEREX TELELECT MUST BE NOTIFIED AS CAPACITIES SHOWN MAY BE AFFECTED.

REF: #####
 OPTIONS: FBG HYD 3RD, ESK, AUG 18, TRANS TPP

DIGGER DERRICK
 Model: #####

S/N: #####

- 1) CAUTION: MULTIPLE-PART LINES ARE REQUIRED FOR LOADS ABOVE 6810 LBS.
- 2) SYNTHETIC OR ROTATION RESISTANT WIRE ROPE MUST HAVE 37200 LB. BREAKING STRENGTH AND 2.8% MAXIMUM STRETCH AT 7440 LB SAFE WORKING LOAD.
- 3) WIRE ROPE OTHER THAN ROTATION RESISTANT MUST HAVE 26040 LB. BREAKING STRENGTH.
- 4) CAPACITIES ARE BASED ON AN UNLOADED VEHICLE WEIGHT OF NOT LESS THAN 24280 LBS. AND ARE 85% OF TIPPING LOADS WITH TRUCK LEVELLED ON A FIRM LEVEL SURFACE.
- 5) USE BOOM ANGLE AND SECTION EXTENDED CAPACITY IF SECTIONS ARE NOT FULLY EXTENDED.
- 6) ALL OUTRIGGERS MUST BE EXTENDED AND SET FIRMLY ON THE GROUND BEFORE OPERATING THE DERRICK.
- 7) WARNING: ALWAYS REFER TO UPPER CONTROL LOAD CHART FOR OPERATION FROM BOOM TIP CONTROLS.



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Digger Derrick Load Charts—Altec

DIGGER DERRICK OPERATOR

LOAD CAPACITIES (LB) FOR DIGGER DERRICK USE ¹												
LOAD RADIUS (FT)	INTERMEDIATE BOOM FULLY RETRACTED ⁴			UPPER BOOM FULLY EXTENDED ⁴			INTERMEDIATE BOOM FULLY EXTENDED ⁴			UPPER BOOM FULLY EXTENDED ⁴		
	UPR BOOM FULLY RETD ⁴	UPR BOOM EXT 8 FT ⁴	UPR BOOM FULLY EXT ⁴	UPR BOOM FULLY RETD ⁴	UPR BOOM EXT 8 FT ⁴	UPR BOOM FULLY EXT ⁴	UPR BOOM FULLY RETD ⁴	UPR BOOM EXT 8 FT ⁴	UPR BOOM FULLY EXT ⁴	UPR BOOM FULLY RETD ⁴	UPR BOOM EXT 8 FT ⁴	UPR BOOM FULLY EXT ⁴
	BOOM ANGLE	LOAD CAPACITY ²	BOOM ANGLE	LOAD CAPACITY ²	BOOM ANGLE	LOAD CAPACITY ²	BOOM ANGLE	LOAD CAPACITY ²	BOOM ANGLE	LOAD CAPACITY ²	BOOM ANGLE	LOAD CAPACITY ²
5.5	80°	30000	—	—	—	—	—	—	—	—	—	—
8	74°	22420	78°	15000	—	—	80°	19970	—	—	—	—
10	69°	18050	75°	15000	77°	14690	76°	15820	79°	14900	—	—
12	63°	14970	71°	15000	74°	12290	73°	14090	77°	13880	78°	10780
15	55°	12450	65°	12200	69°	9860	68°	11260	73°	10840	75°	8570
20	37°	8630	55°	8750	60°	7410	60°	8010	66°	7950	69°	6370
25	—	—	42°	6610	50°	5940	50°	5980	59°	6070	62°	5010
30	—	—	25°	5180	39°	4950	39°	4590	51°	4760	56°	4090
35	—	—	—	—	22°	4250	23°	3600	42°	3800	48°	3420
40	—	—	—	—	—	—	—	—	31°	3070	40°	2920
45	—	—	—	—	—	—	—	—	12°	2490	29°	2540
50	—	—	—	—	—	—	—	—	—	—	10°	2120
—	0°	6410	0°	4550	0°	3840	0°	3100	0°	2380	0°	2070

UNLOADED VEHICLE WEIGHT 33,000 LB⁶
 WINCH LINE RATED WORKING LOAD 12,000 LB⁵
 WINCH CAPACITY 15,000 LB

ANSI A10.31 STABILITY TEST LOAD – 2610 LB⁶ AT 15° BOOM ANGLE AND FULL EXTENSION. REDUCE TEST LOAD BY 120 LB IF UNIT HAS TRANSFERABLE FLARES PINNED TO UPPER BOOM.

MAXIMUM HYDRAULIC SYSTEM PRESSURE SETTING 3000 PSI
 ELECTRICAL CONTROLS OPERATING VOLTAGE 12 VDC
 QUALIFICATION VOLTAGE 46 KV
 DATE UNIT TESTED 12/01/11

OPERATING TEMPERATURE RANGE TO MAINTAIN STRUCTURAL INTEGRITY: -40°F TO 130°F (-40°C TO 55°C)

Altec MODEL: ###
 SERIAL NO: ###

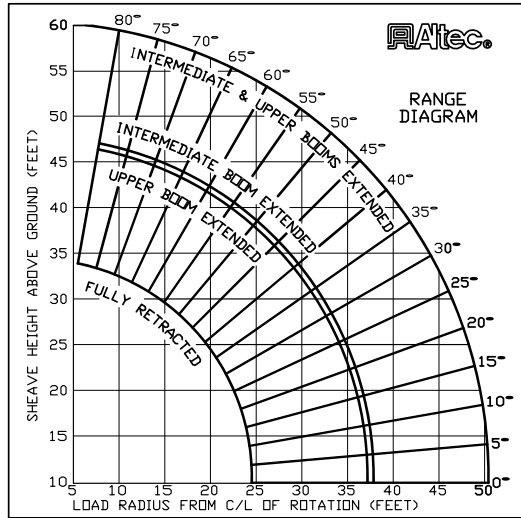
This unit complies with ANSI A10.31 as of manufacturing date. It is the responsibility of dealers, owners, users, operators, lessors, lessees and installers to comply with appropriate sections of ANSI A10.31.

Values shown in Load Capacity Chart at left must be reduced by amount shown below for each option which is mounted on boom:

TRANSF FLARES ON EXTENDED UPPER BOOM...100 LBS
 PLATFORM AT BOOM TIP.....125 LB EACH LINER.....40 LB EACH
 4' MATERIAL HANDLING JIB (ANY MODEL).....120 LB
 8' MATERIAL HANDLING JIB.....150 LB
 8' PERSONNEL JIB WITH NO PLATFORM.....160 LB
 8' PERSONNEL JIB WITH 1 PLATFORM.....350 LB
 8' PERSONNEL JIB WITH 2 PLATFORMS.....550 LB

CAUTION
 Read and understand all operating and safety information in manual and on all placards before operating this unit. If you do not have manual, or if placards are missing/unreadable, please call 1-877-462-5832 for assistance.
 See adjoining placard for notes 1 thru 6 which are referenced on this chart.

INCLUDED OPTIONS:
 _____ PLATFORM - (QTY) _____ 4' MATERIAL HANDLING JIB
 _____ LINER _____ 8' MATERIAL HANDLING JIB
 _____ NON-INSULATED DERRICK _____ 8' PERSONNEL JIB
 _____ INSULATED DERRICK



CAUTION READ AND UNDERSTAND OPERATOR'S MANUAL BEFORE OPERATING THIS UNIT.

Notes 1 thru 6 below refer to adjoining Load Capacity Chart for Digger Derrick Use.

- Load capacities shown in chart are for Digger Derrick Use only. This means that load is lifted with winch line at boom tip or material handling jib tip, with no personnel platform occupied. If platform is to be occupied, refer to Load Capacity Chart for Platform and Combined Derrick/Platform Use located at boom tip for proper load capacities.
- Load being lifted must not exceed the smallest of the following values:
 - Load capacity shown in chart minus reductions for all options mounted on boom
 - Winch Line Rated Working Load multiplied by number of parts of winch line
 - Winch capacity multiplied by number of parts of winch line
 - Rated capacity shown in Rated Capacity Chart for Material Handling Jib (if Jib in use)
- If actual load radius is not shown in chart, use load capacity at next longer radius shown. When lifting with material handling jib, use actual load radius at jib tip. Do not exceed maximum load radius shown in chart when lifting with jib. Boom angles shown in chart do not apply for jib use.
- If a boom section is extended to a length not shown in chart, use load capacity at next longer length of extension shown for that boom section.
- Multiple part winch line must be used when load being lifted exceeds Winch Line Rated Working Load. Winch line pull (obtained by dividing load weight by number of parts of line) must not exceed Winch Line Rated Working Load. Upper boom must be fully retracted when using multiple part line if winch line anchor point is on intermediate boom.
- Load capacities shown in chart do not exceed 85% of actual tipping loads on level surface, based on Unloaded Vehicle Weight shown. If derrick is reoriented or if vehicle is modified in any way affecting stability, contact Altec to determine if new load capacity chart is required.

Altec RATED CAPACITIES (LB) FOR MATERIAL HANDLING JIBS

JIB BRACKET PIN POSITION	DERRICK BOOM ANGLE						JIB BOOM
	0°	15°	30°	45°	60°	75°	
1	700	700	775	850	1100	1550	8 FT
2	725	775	925	1250	1700	1850	
3	825	1000	1400	1850	—	—	
1	1000	1050	1200	1350	1650	2200	4.2 FT
2	1100	1250	1400	1825	2400	4000	
3	1300	1500	2000	4000	—	—	
BOOM TIP WINCH UNIT	A L 750 LB IN ALL POSITIONS						4.8 FT TELE-SCOPIC

CAUTION Do not handle poles with jib installed.

Load on winch line at jib tip must not exceed the lesser of rated capacity shown above or load capacity as determined below:

- * If platform is in use, refer to Load Capacity Chart for Platform and Combined Derrick/Platform Use.
- * If platform is not in use, refer to Load Capacity Chart for Digger Derrick Use, using actual jib tip load radius.

For boom angles not shown, use capacity at next lower boom angle.

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