

SPECIFICATIONS

American Model 9090-DES Diesel Electric Locomotive Crane

TRUCKS:

2 ea.-Three Axle/Six Wheel 56.5" (1435mm) Gauge Truck Assemblies
33" (838mm) Diameter Multiple Wear Steel Carwheels, Class "C"
Cast Steel Type Side Frames and Bolsters Beams
6" x 11" Anti-friction Journal Bearings
Straight Air Braking System, Class I (Class II & III are optional)
Two, Electric Traction Motors: (one per truck assembly)
Enclosed Triple Reduction Traction Transmission Gear Cases
(with oil bath lubrication)
Quick Disengagement of Travel Motors for Towing in Train

CARBODY:

Heavy Duty all Welded Structural Steel Carbody
Standard AAR Type "E" Bottom with Friction Draft Gears
Carbody Ballast Material: (85,000 lbs / 38,556 kg.) **Supplied & Installed by Customer**
Standard Type Manual Outrigger Beams
Suspension System Lockout
Hand Brakes at Both Ends of Carbody
Standard Steps and Grab Handles
Standard Shipping Jacks and Clamps

CAB & MACHINERY DECK:

Anti-Friction Bearing Load and Hook Roller System
Removable Counterweight
Fully Enclosed Wide Vision, Standard Elevated Operator's Cab with Safety Glass
Acoustically Insulated Operator's Cab

CAB & MACHINERY DECK: (con't)

Walkway, Between Cab and Machinery House with Sealed Steel Door
190 Gallon (903 liter) Fuel Tank
Fuel Level Sight Gauge
Air Operated Horn
Air Operated Windshield Wiper
Main Air & Brake Air Gauges
Cab Heater
Ventilating / Defrosting Fan
Dry Type Fire Extinguisher – 20 lb / 9.5 kg

POWER UNIT:

Detroit Diesel Turbocharged Diesel Engine with Nelson Muffler
Dry Type Air Cleaner
Automotive Type Electric Starter: 24 Volt DC
Low Oil Pressure-High Coolant Temperature Alarm System
Magnetic Type Master Clutch Arrangement
70 CFM Air Compressor and Air Drier Unit

MAIN & AUXILARY HOIST:

Main and Auxiliary Hoist Drum Lagging - 27 3/8" (695mm)
Metered Air Clutches
Hoist Brakes are Spring Set/ Air Released
One, 200 Ton / 6-Sheave Hook Block

Specifications subject to change without notice.

SWING:

Roller Path & Bull Gear are a Single Unit
Internal Tooth Bull Gear
Air Operated Friction Type Controlled Clutches
Swing Brake is Spring Set/Air Released

BOOM HOIST:

Air Operated Friction Type Controlled Clutch
Automatic Boom Hoist Shut-Off
Controlled Boom Lowering
Boom Brake is Spring Set/Air Released

BOOM:

Boom Options:
70 ft. - 77H Tubular Chord Boom with Hammerhead Type Boom Point
70 ft. - 55" x 46" Angle Chord (55"x46") Boom Pipe Laced
(Longer Booms Upon Request)
50 ft. Wrecker Style Boom
Pendent Type Suspension
Retractable A-Frame
Boom Angle Indicator
Telescopic Boom Stops

ELECTRICAL:

One – General Electric, 1519 Traction Generator
Two – General Electric, 763 Traction Motors
Heavy Duty Traction Control System
Belt Driven 24 Volt/ 100 Amp. Alternator
Electric Travel Warning Alarm

LIGHTING:

2- 150 watt Floodlight on Cab Front
2- 150 watt Floodlights in Boom
2- 150 w Red tail lights
1- Red Strobe Light on Top of Cab
4- 50 watt Lights in Machinery Deck
1- 50 watt Light in the operators Cab
1 -24 volt DC Outlet in Machinery Deck

MANUALS:

2 ea. Parts Manuals & Operator's Manuals (in English)

PAINT:

Cab Exterior	Yellow
Cab Interior	Yellow
Carbody	Black
Boom	Black with Yellow Tip
Trucks	Black
Hooks	Yellow
Walking Surfaces	Anti-Skid Coating



AMERICAN

Model 9090-DES Locomotive Crane
 Ratings In Pounds
 77 H Tubular Boom w/ Hammerhead Tip
 140,000 lb. Counterweight

BOOM LENGTH	RADIUS	BOOM ANGLE	FREE OVER REAR	OUTRIGGERS SET		FROM BOOM POINT TO GROUND
				OVER SIDE	OVER REAR	
(FEET)		(DEG.)	(POUNDS)	(POUNDS)	(POUNDS)	(FEET)
70' (21.3m) BOOM	16	82.8	443,810*	443,810*	443,810*	78
	20	79.5	382,150	425,630*	425,630*	77
	25	75.4	270,400	302,230	326,200*	76
	30	71.1	208,340	229,140	262,620*	75
	35	66.7	168,940	183,990	220,670*	73
	40	62.2	141,440	153,070	188,670*	70
	50	52.4	105,970	113,840	146,010*	64
	60	41.0	84,020	89,930	118,390*	54
	70	25.6	69,040	73,780	99,140*	38
80' 24.4m BOOM	17	83.0	443,530*	443,530*	443,530*	88
	20	80.8	381,910	424,870*	424,870*	88
	25	77.2	270,110	302,020	325,150*	87
	30	73.5	208,050	228,900	263,230*	85
	35	69.8	168,650	183,750	219,370*	84
	40	65.9	141,140	152,810	188,120*	82
	50	57.8	105,670	113,570	145,790*	76
	60	48.8	83,730	89,660	118,100*	68
	70	38.2	68,810	73,570	99,040*	58
80	23.8	57,870	61,860	84,280*	40	
90' 27.4m BOOM	19	82.5	409,480*	409,480*	409,480*	98
	20	81.9	381,620	407,630*	407,630*	98
	25	78.7	269,800	301,770	325,590*	97
	30	75.4	207,720	228,630	261,660*	96
	35	72.1	168,350	183,500	219,140*	94
	40	68.7	140,810	152,520	187,640*	92
	50	61.7	105,350	113,280	145,080*	88
	60	54.2	83,420	89,390	118,000*	81
	70	45.8	68,540	73,320	98,380*	73
	80	35.9	57,620	61,630	84,000*	61
90	22.4	49,320	52,790	72,800*	42	
100' 30.5m BOOM	20	82.7	372,590*	372,590*	372,590*	108
	25	79.8	269,420	301,470	324,390*	107
	30	76.9	207,340	228,300	261,320*	106
	35	73.9	167,990	183,180	219,280*	105
	40	70.9	140,430	152,180	187,650*	103
	50	64.8	104,950	112,920	145,160*	99
	60	58.2	83,050	89,050	117,050*	93
	70	51.2	68,190	73,000	97,790*	86
	80	43.3	57,260	61,300	83,410*	77
	90	34.0	48,980	52,470	72,390*	64
100	21.2	42,480	45,580	63,700*	44	



AMERICAN

Model 9090-DES Locomotive Crane
 Ratings In Pounds
 77 H Tubular Boom w/ Hammerhead Tip
 140,000 lb. Counterweight

LOAD HOISTING INFORMATION

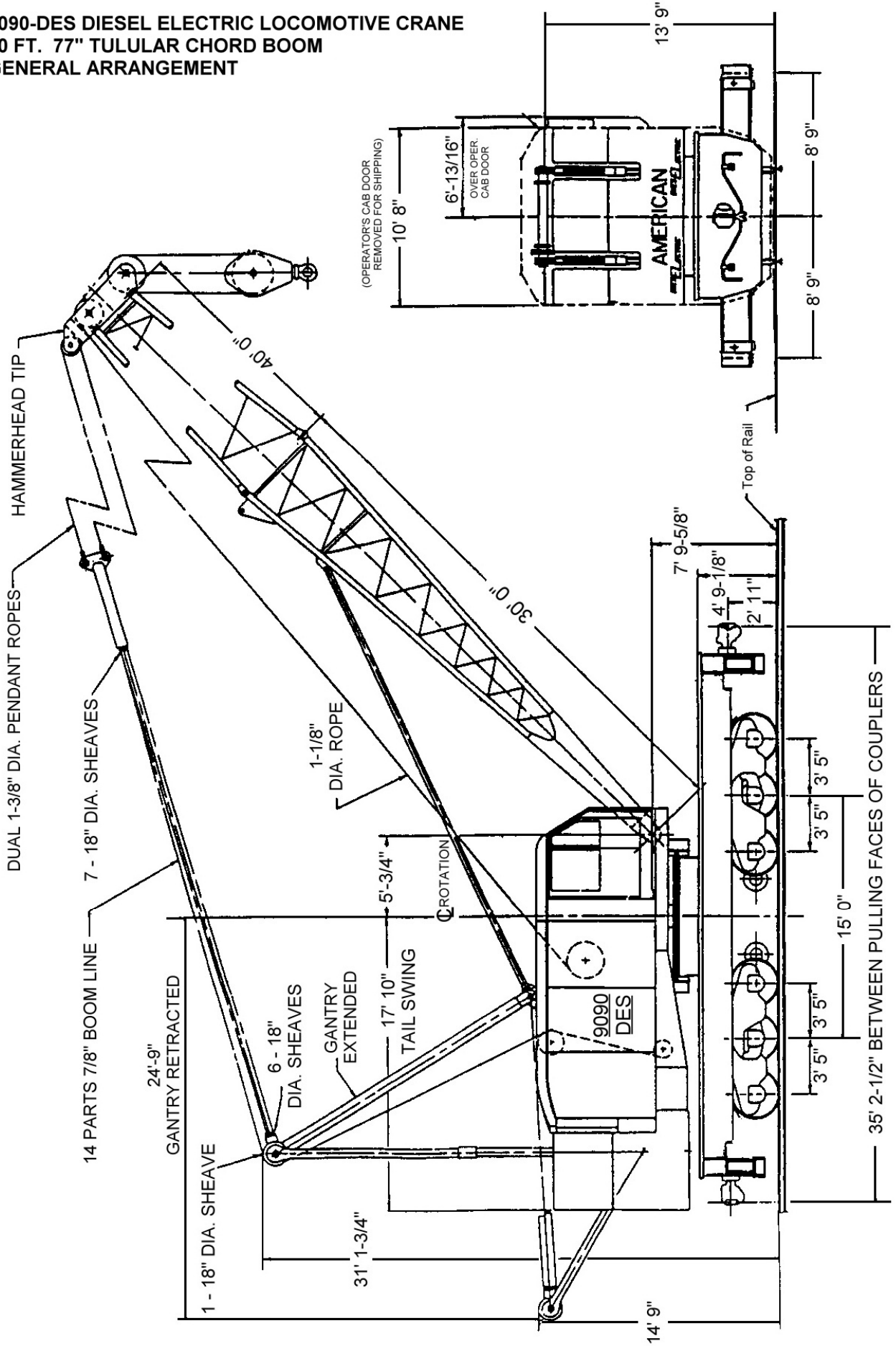
MAXIMUM LIFTING CAPACITY - LBS.	MIMIMUM PARTS OF LINE	MAXIMUM HOISTING RIGHT HAND DRUM	MAXIMUM HOISTING LEFT HAND DRUM
443,810	12	69'	53'
408,570	11	76'	58'
371,420	10	83'	64'
334,280	9	93'	71'
297,140	8	104'	80'
260,000	7	119'	92'
222,850	6	139'	107'
185,710	5	167'	129'
148,570	4	209'	161'
111,420	3	379'	215'
74,280	2	419'	323'
37,140	1	839'	647'

BOOM COMPOSITION CHART

BOOM LENGTH (FEET)	30' 77S INNER	10' 77S CENTER	20' 77S CENTER	50' 77S CENTER	40' 77H OUTER	HAMMER-HEAD TIP
70'	1	0	0	0	1	1
80'	1	1	0	0	1	1
90'	1	0	1	0	1	1
100'	1	1	1	0	1	1

Subject to Change

**9090-DES DIESEL ELECTRIC LOCOMOTIVE CRANE
70 FT. 77" TULULAR CHORD BOOM
GENERAL ARRANGEMENT**



**9090-DES DIESEL ELECTRIC LOCOMOTIVE CRANE
PRELIMINARY CAPACITY CHARTS**

MAINFALL RATTINGS

BOOM CONST,: 50 Ft. – WRECKER STYLE Boom with 5 Ft. Integral Jib
 BOOM HOIST: 14 Part with 1.375" Pendants
 CRANE WEIGHT: Approx. 446670 Lbs.

			FREE ON WHEELS		ON OUTRIGGERS		TRUCK WEIGHTS	
RADIUS FEET	ANGLE DEG.	TIP HGT	OVER SIDE	OVER END	OVER SIDE	OVER END	FRONT TRUCK	REAR TRUCK
17	76.2	56	0	444,420	444,420	444,420	805,400	85700
20	72.6	55	0	370,600	422,160	422,160		
25	66.5	53	0	261,600	292,720	321,730		
30	60.1	51	0	201,100	221,430	258,890	593680	54260
35	53.2	48	0	162,530	177,270	216,430		
40	45.7	43	0	135,850	147,270	185,500		
50	26.0	29	0	101,290	109,060	131,690	497340	51100
		*15		0	0	0	** 121060	** 328180

Truck Weights: "Free on Wheels – Over End" @ Maximum Load
 "Over End" Capacities: Maximum 20 Degrees Swing Rotation From Track Center
 * Height of Retracted Gantry
 ** Assumes a 2000 lb. Hook Block Suspended at Boom Point

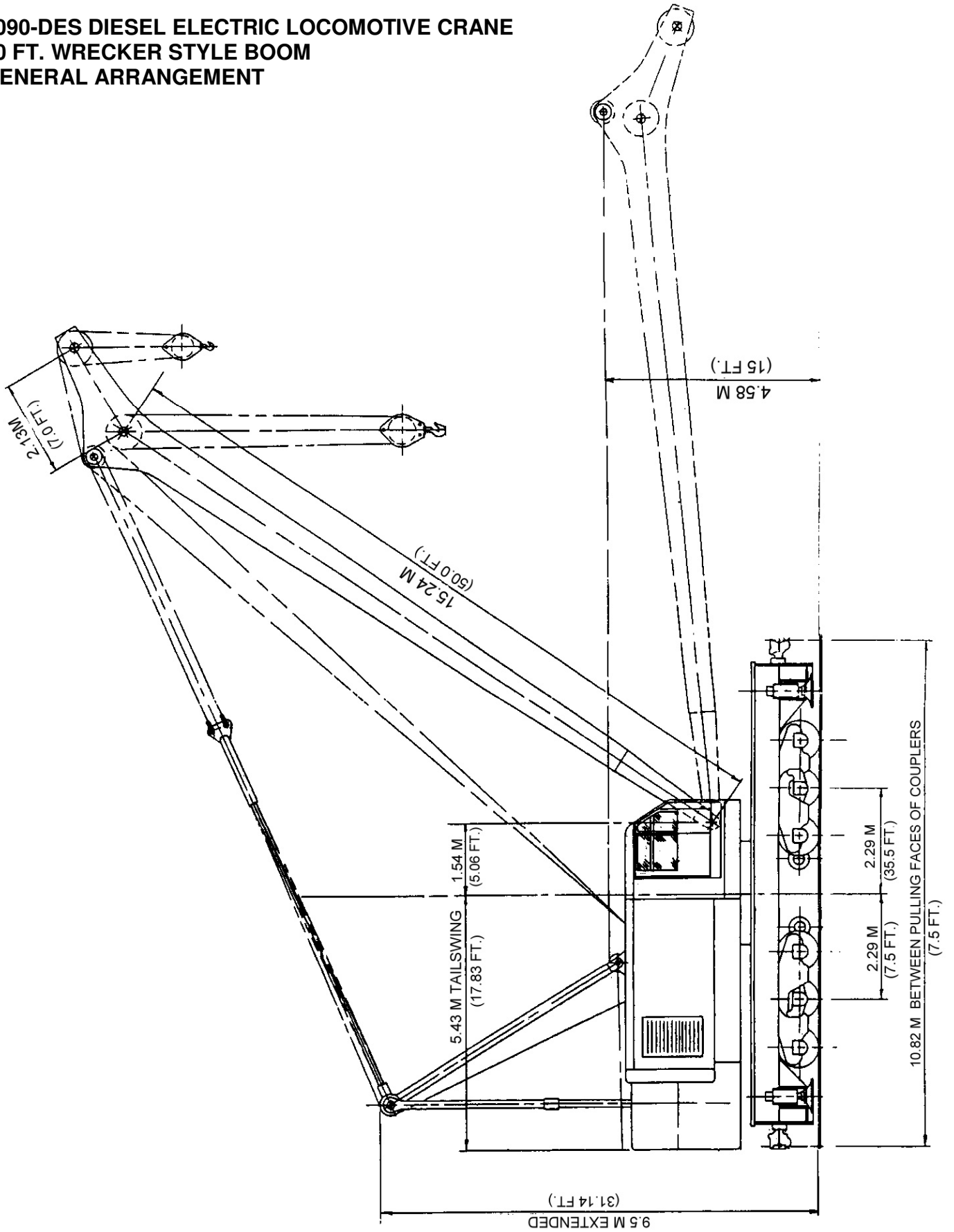
INTEGRAL RATTINGS

BOOM CONST,: 50 Ft. – WRECKER STYLE Boom with 5 Ft. Integral Jib
 BOOM HOIST: 14 Part with 1.375" Pendants
 CRANE WEIGHT: Approx. 446670 Lbs.

			FREE ON WHEELS		ON OUTRIGGERS	
RADIUS FEET	ANGLE DEG.	TIP HGT	OVER SIDE	OVER END	OVER SIDE	OVER END
20	76.2	61	0	70,000	70,000	70,000
25	70.7	59	0	70,000	70,000	70,000
30	64.9	57	0	70,000	70,000	70,000
35	58.9	54	0	70,000	70,000	70,000
40	52.3	51	0	70,000	70,000	70,000
50	36.7	40	0	70,000	70,000	70,000

Subject to change

**9090-DES DIESEL ELECTRIC LOCOMOTIVE CRANE
50 FT. WRECKER STYLE BOOM
GENERAL ARRANGEMENT**



Subject to Change

**9090-DES DIESEL ELECTRIC LOCOMOTIVE CRANE
PRELIMINARY CAPACITY CHARTS**

MAINFALL RATINGS in LBS.

BOOM CONST,: 70 Ft. (21.33 m) – 58" x 46" Chord Angle / Pipe Laced Boom

BOOM HOIST: 10 Part with 1.375" Pendants

CRANE WEIGHT: Approx. 435,900 Lbs. (197,724 kg)

COUNTERWEIGHT 120,000 LBS. (54,432 kg)								
			FREE ON WHEELS		ON OUTRIGGERS		TRUCK WEIGHTS	
RADIUS FEET	ANGLE DEG.	TIP HGT	OVER SIDE	OVER END	OVER SIDE	OVER END	FRONT TRUCK	REAR TRUCK
17	80.2	77	0	242,450	242,450	242,450	484,300	194,000
20	77.7	76	0	233,660	233,660	233,660		
25	73.5	75	0	219,170	219,170	219,170		
30	69.1	73	0	191,780	206,940	206,940		
35	64.7	71	0	155,550	169,970	195,600		
40	60.1	68	0	130,500	141,680	179,930		
45	55.2	65	0	112,030	121,090	156,730	497,000	51,000
50	50.1	61	0	98,030	105,620	139,010		
55	44.5	57	0	86,880	93,390	124,680		
60	38.3	51	0	77,850	83,560	109,270		
65	31.1	44	0	70,400	75,480	92,810		
70	21.9	34	0	64,210	68,790	78,010	452,700	47,800

Truck Weights: "Free on Wheels – Over End" @ Maximum Load

"Over End" Capacities: Maximum 20 Degrees Swing Rotation from Track Center

MAINFALL RATINGS in LBS.

BOOM CONST,: 70 Ft. (21.33 m) – 58" x 46" Chord Angle / Pipe Laced Boom

BOOM HOIST: 10 Part with 1.375" Pendants

CRANE WEIGHT: Approx. 390,900 Lbs. (176,904 kg)

COUNTERWEIGHT 75,000 LBS. (34,020 kg)								
			FREE ON WHEELS		ON OUTRIGGERS		TRUCK WEIGHTS	
RADIUS FEET	ANGLE DEG.	TIP HGT	OVER SIDE	OVER END	OVER SIDE	OVER END	FRONT TRUCK	REAR TRUCK
17	80.2	77	0	242,450	242,450	242,450	506,300	127,000
20	77.7	76	0	233,660	233,660	233,660		
25	73.5	75	0	200,140	219,170	219,170		
30	69.1	73	0	153,970	171,830	207,090		
35	64.7	71	0	124,640	137,780	183,360		
40	60.1	68	0	104,220	114,510	157,090		
42	58.2	67	0	97,940	107,300	149,270	442,000	45,000
45	55.2	65	0	89,380	97,800	137,650		
50	50.1	61	0	77,930	85,040	121,980		
55	44.5	57	0	68,890	75,040	109,400		
60	38.3	51	0	61,670	67,090	98,910		
65	31.1	44	0	55,630	60,470	90,140	404,100	37,700
70	21.9	34	0	50,550	54,930	78,010		

Truck Weights: "Free on Wheels – Over End" @ Maximum Load

"Over End" Capacities: Maximum 20 Degrees Swing Rotation from Track Center

Subject to change

**9090-DES DIESEL ELECTRIC LOCOMOTIVE CRANE
PRELIMINARY CAPACITY CHARTS**

MAINFALL RATINGS in LBS.

BOOM CONST,: 70 Ft. (21.33 m) – 58" x 46" Chord Angle / Pipe Laced Boom

BOOM HOIST: 10 Part with 1.375" Pendants

CRANE WEIGHT: Approx. 348,900 Lbs. (158,261 kg)

			FREE ON WHEELS		ON OUTRIGGERS		TRUCK WEIGHTS	
RADIUS FEET	ANGLE DEG.	TIP HGT	OVER SIDE	OVER END	OVER SIDE	OVER END	FRONT TRUCK	REAR TRUCK
COUNTERWEIGHT 33,000 LBS. (14,969 kg)								
17	80.2	77	87,060	242,450	242,450	242,450	526,800	64,500
20	77.7	76	70,740	219,570	233,660	233,660		
25	73.5	75	53,500	154,740	178,320	219,320		
30	69.1	73	42,460	118,690	134,700	191,220		
35	64.7	71	34,840	95,790	107,740	160,220		
40	60.1	68	29,140	79,830	89,300	136,590		
45	55.2	65	24,780	68,120	75,950	119,570	386,000	31,200
50	50.1	61	21,460	59,300	65,960	105,550		
55	44.5	57	18,660	52,220	58,020	94,670		
60	38.3	51	16,350	46,490	51,630	85,500		
65	31.1	44	14,420	41,770	46,390	77,920		
70	21.9	34	12,760	37,790	41,990	71,270	358,700	28,400
		14	0	0	0	0	*175,400	*175,900

Truck Weights: "Free on Wheels – Over End" @ Maximum Load

"Over End" Capacities: Maximum 20 Degrees Swing Rotation from Track Center

* Assumes a 2000 lb. Hook Block Suspended at Boom Point

Subject to Change

**9090-DES DIESEL ELECTRIC LOCOMOTIVE CRANE
PRELIMINARY CAPACITY CHARTS**

MAINFALL RATINGS in LBS.

BOOM CONST,: 70 Ft. (21.33 m) – 58" x 46" Chord Angle / Pipe Laced Boom

BOOM HOIST: 10 Part with 1.375" Pendants

CRANE WEIGHT: Approx. 315,900 Lbs. (143,292 kg)

COUNTERWEIGHT None			FREE ON WHEELS		ON OUTRIGGERS		TRUCK WEIGHTS	
RADIUS FEET	ANGLE DEG.	TIP HGT	OVER SIDE	OVER END	OVER SIDE	OVER END	FRONT TRUCK	REAR TRUCK
17	80.2	77	53,570	225,630	242,450	242,450	515,600	26,000
20	77.7	76	43,280	169,620	205,500	233,820		
25	73.5	75	32,150	119,100	140,160	209,760		
30	69.1	73	25,000	90,990	105,540	169,920		
35	64.7	71	19,950	73,010	84,020	141,300		
40	60.1	68	16,360	60,690	69,150	120,580		
45	55.2	65	13,520	51,550	58,900	105,050	344,100	23,500
50	50.1	61	11,270	44,560	50,860	93,090		
55	44.5	57	9,440	39,030	44,560	83,070		
60	38.3	51	7,930	34,560	39,480	75,030		
65	31.1	44	6,750	30,950	35,400	68,120		
70	21.9	34	5,650	27,830	31,890	61,640	323,400	20,700
		14	0	0	0	0	*191,500	*126,700

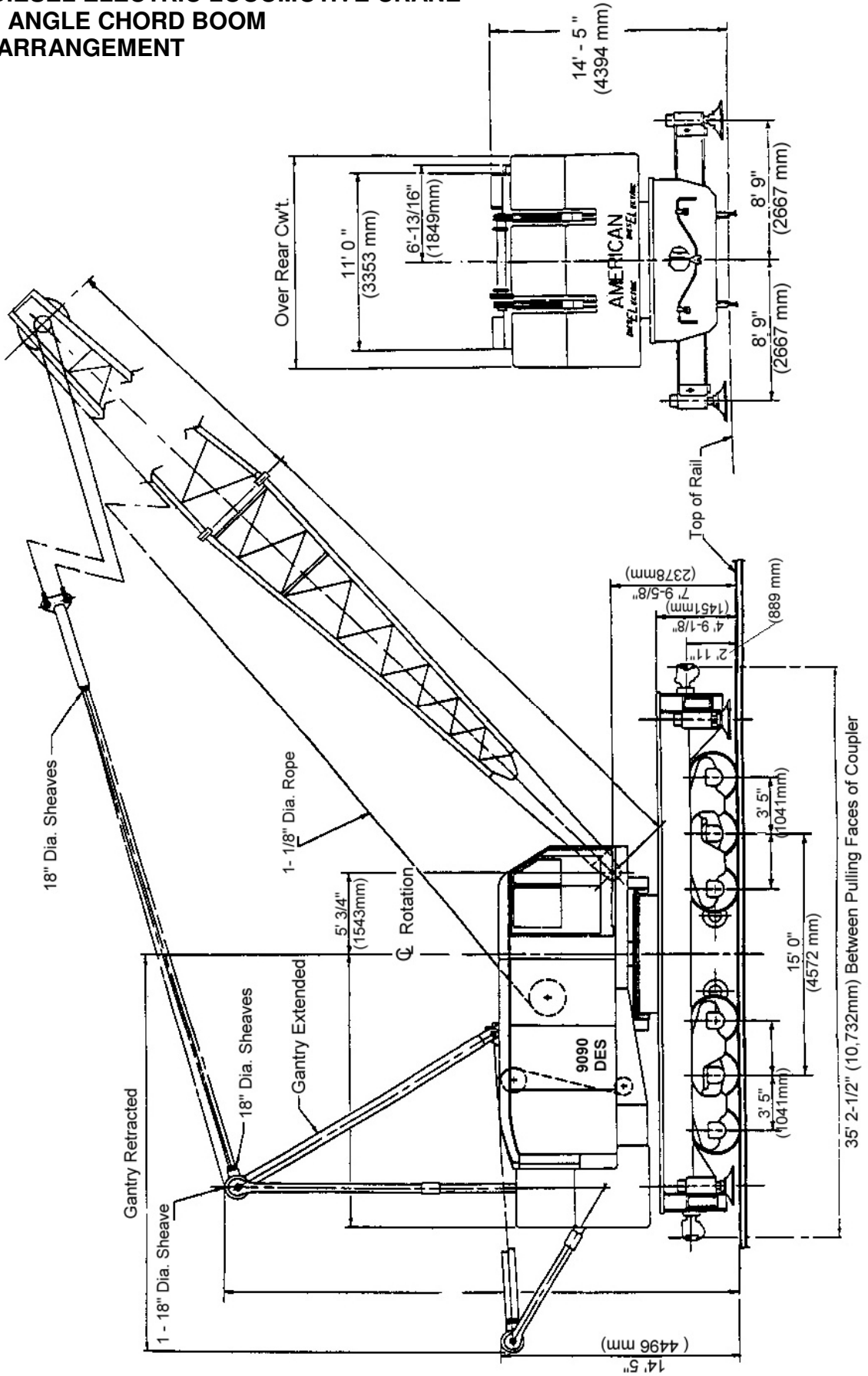
Truck Weights: "Free on Wheels – Over End" @ Maximum Load

"Over End" Capacities: Maximum 20 Degrees Swing Rotation from Track Center

* Assumes a 2000 lb. Hook Block Suspended at Boom Point

Subject to Change

**9090-DES DIESEL ELECTRIC LOCOMOTIVE CRANE
70 FT - 58" ANGLE CHORD BOOM
GENERAL ARRANGEMENT**



Subject to Change