

TECO TAMPA ELECTRIC AN EMERA COMPANY MOBILE CRANE NORMAL LIFT & RIGGING PLAN

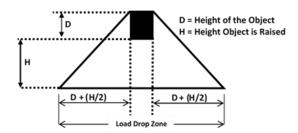
Rev. 12/15/2019

Tas Ite	sk Description:		Date Prepared:
1.	1.1 Loads weighing less than or equal to 40,	000 lbs. with a known cer egree angles from the ho	ing normal lift criteria outlined below: ☐ Yes ☐ No enter of gravity, rigging configurations where the slings are orizontal, easy to balance and secure with lift attachment d drifted less than 15 degrees.
2.	The following cribbage will be utilized for the	planned lift:	
3.	Location of where crane to be placed to make	e lift(s):	
4.	Which of the following has been verified price	or to setting up crane? \Box	☐ Drawings ☐ Ground Penetrating Radar ☐ Soil Borings
	☐ Visual survey of area ☐ Engineering ☐ Ot	ner/Comments:	
5.	Underground Services/Utilities Identified? □	Yes □ No □ None	
6.	Identify and list services/Utilities identified b	elow grade?	
7.	Are Services/Utilities below grade to be remoted. 7.1 If utilities are left in service, are there possible. 7.2 List hazards/Risk:	tential hazards/Risk? 🗆 \	
A)	CRANE		
Size	t/Type/Configuration	Last	st Crane Annual Inspection
Mai	nufacturer	Loa	ad Line: Diameter
Seri	al Number		No. of Parts
Ven			Capacity
B)	<u>SLINGS</u>		
A.	Type (Material)	E.	d/D Ratio
В.	Sizei	n. F.	Number of Slings
C.	Lengthf	t., in. G.	Other
D.	Rated Capacity per Sling	os.	
C)	SHACKLES		
A.	Pin Diameterin	D.	Number of Shackles
В.	CapacityIb	S. E.	Other (chain falls, etc.)
C.	Shackles attached to Lobby or Collector Ring \Box Υ	es □ No	

) RIGGING DIAGRAM	1 & BLOCKING DIMENSIONS- Draw out	rigging plan in space below.
Include rigging atto	nchment points, sling angles, rigging con	nnection points, shackles, and calculated sling tension
*Multi-leg lifts mus	st be calculated with consideration for	2 legs to support the entire load as a safety factor.
		Weight =
		of Legs =
		g Angle = drag Ang
	Weight ÷ Legs x Load	
	Calculated Sling 1	
culate Minimum Di	mensions of Crane Outrigger Pads	1. Calculate the Force
e example to the rig	ht	30,000 Crane Weight
Ode late the Ferri		20,000 Total Load weight
Calculate the Force	3:	50,000 LBS FORCE
		2. Obtain the soils Ground Bearing Pressure
Obtain the soils Gr	ound Bearing Pressure:	2000 PSF (max TECO allowable without approval) 3. Determine the Area Required
		50,000 LBS ÷ 2000 PSF = 25 ft ²
		4. Find the Square Root
Determine the Are	a Required:	√25 = 5 ft. by 5 ft.
Find the Square Ro	oot:	BLOCKING DIMENSIONS:
oqual o Ito	· 	5 ft. x 5 ft.
OCKING DIMENSION	IS:	North Address of the Control of the

E) LOAD DROP ZONE

- A. The Load Drop Zone (LDZ), according to OSHA, is the "area (including but not limited to the area directly beneath the load) in which it is reasonably foreseeable that partially or completely suspended materials could fall in the event of an accident." OSHA 1926.1401
- B. For suspended loads, the LDZ shall be defined as the area underneath the load and radius from that area equal to the sum of the vertical length of the load and half of the height the load is to be lifted. Refer to the figure below for an illustration on determining the LDZ area.
- C. Additionally, the lift team shall consider the fall path if a load were to strike an object, ricochet, or bounce off an existing structure or equipment below the lift and adjust the LDZ accordingly.



	Height of object: feet Height	ght object raised:		feet	Load Drop Zone:	feet
F)	COMPONENT WEIGHTS					
A.	Load Block	lbs.	F.	Headache B	all & Hook	lbs.
В.	Spreader Bar	lbs.	G.	Cable (Load	Line)	lbs.
C.	Slings	lbs.	Н.	Other (Chai	n Falls, etc.)	lbs.
D.	Shackles	lbs.	I.	Weight of L	oad to be lifted	lbs.
E.	Jib	lbs.	J.	Total Load t	o be lifted (sum A-I)	lbs.
K.	Source of Load weight			(Mfg., Engir	neer, Truck Ticket, DWGS, Dy	nameter, etc.)
L.	Maximum Radius: Crane Center pin to Center of	Load		ft.		
M.	Length of Boom	·		ft.		
N.	Angle of Boom at Load Pick-up	-		degrees		
Ο.	Angle of Boom at Load Placement	-		degrees		
Р.	Crane capacity at max radius from load chart			lbs.		
Q.	Lift is % of rated capacity			_% (J / P) x	100	
	If rated capacity, (Q) is 75% or less, normal lift p	olan is acceptable. O	therwise,	proceed to j	fill out a critical lift plan.	
G)	COMMENTS/OTHER:					
	☐ Job Risk Briefing Form completed and a ☐ Crane Pre-shift Crane Inspection Form and attached			using	buckets utilized for storing chain falls e(s) being utilized	g excess chain if
	Load Attachment Points have been insp	pected and			otection required yes/no	
	are in good condition Quarterly rigging inspection has been of	ampleted and			tion for need of softeners	
	rigging condition is acceptable for this l	•			e conditions verified acce on of the lift– heat, cold, v	•

etc.

☐ All rigging hardware visually inspected prior to use

	er personnel or occupied		e. Hard Hats, High Visibility sees, hearing protections etc.
building(s) Ground bearing pressure is least the second bearing the se	oss than 2 000 BSE (If		actices have been reviewed
greater, TECO civil engineer		☐ Lift is being made p	
sign here			
☐ Working near power lines? \		Load drop zone bei	en calculated, perimeter secured
TECO's Crane operating near	• •		
Moving and/or/lifting loads aroun	-	us systems or over critical a	ssets such as turhines
generators, exciters, heaters, natu	•	•	
	_		•
being made. Check box below that	t is relevant if making a lift a	round specific nazards syste	ms or critical assets.
☐ Notification has been commu	unicated to station managen	ant that lifts are to be mad	o over critical assets such as
	_	ient that mits are to be mad	e over critical assets such as
turbines, generators, exciters	s, etc.		
☐ Notification has been commun	nicated to station managem	ant that lifts are to be made	near or over specific
☐ Notification has been commu			•
hazardous systems such as over h			nydrogen, natural gas systems
and/or other identified specific ha	izards prior to making the lift	. .	
Signing holow indicator a pro lif	ft mooting with all parties has bee	o conducted and all concerns for	
			the lift have been addressed
· · · · · · · · · · · · · · · · · · ·			the lift have been addressed DATF
H) <u>SIGNATURES</u>	PRINT NAME	SIGNATURE	the lift have been addressed <u>DATE</u>
H) <u>SIGNATURES</u> *Qualified Crane Operator	PRINT NAME	SIGNATURE	DATE
H) <u>SIGNATURES</u> *Qualified Crane Operator *Qualified Rigger	PRINT NAME		DATE
*Qualified Crane Operator *Qualified Rigger *Qualified Signal Person	PRINT NAME	<u>SIGNATURE</u>	<u>DATE</u>
H) SIGNATURES *Qualified Crane Operator *Qualified Rigger *Qualified Signal Person *Contractor Qualified Lift Dir.	PRINT NAME	SIGNATURE	<u>DATE</u>
H) SIGNATURES *Qualified Crane Operator *Qualified Rigger *Qualified Signal Person *Contractor Qualified Lift Dir. **TECO Supervisor	PRINT NAME	SIGNATURE	DATE
*Qualified Crane Operator *Qualified Rigger *Qualified Signal Person *Contractor Qualified Lift Dir. **TECO Supervisor TECO Engineer	PRINT NAME	SIGNATURE	DATE
*Qualified Crane Operator *Qualified Rigger *Qualified Signal Person *Contractor Qualified Lift Dir. **TECO Supervisor TECO Engineer Primary Contractor Site Mgr.	PRINT NAME	SIGNATURE	DATE
*Qualified Crane Operator *Qualified Rigger *Qualified Signal Person *Contractor Qualified Lift Dir. **TECO Supervisor TECO Engineer Primary Contractor Site Mgr. Sub-Contractor Site Mgr.	PRINT NAME	SIGNATURE	DATE
*Qualified Crane Operator *Qualified Rigger *Qualified Signal Person *Contractor Qualified Lift Dir. **TECO Supervisor TECO Engineer Primary Contractor Site Mgr. Sub-Contractor Site Mgr.	PRINT NAME	SIGNATURE	DATE
*Qualified Crane Operator *Qualified Rigger *Qualified Signal Person *Contractor Qualified Lift Dir. **TECO Supervisor TECO Engineer Primary Contractor Site Mgr. Sub-Contractor Site Mgr. Other Other	PRINT NAME	SIGNATURE	DATE
*Qualified Crane Operator *Qualified Rigger *Qualified Signal Person *Contractor Qualified Lift Dir. **TECO Supervisor TECO Engineer Primary Contractor Site Mgr. Sub-Contractor Site Mgr. Other Other Other Other *Minimum required parties to attend pre life	PRINT NAME	SIGNATURE	DATE
*Qualified Crane Operator *Qualified Rigger *Qualified Signal Person *Contractor Qualified Lift Dir. **TECO Supervisor TECO Engineer Primary Contractor Site Mgr. Sub-Contractor Site Mgr. Other Other Other	PRINT NAME fit meeting and sign verify lift plan prior to lifts being condu	SIGNATURE	DATE