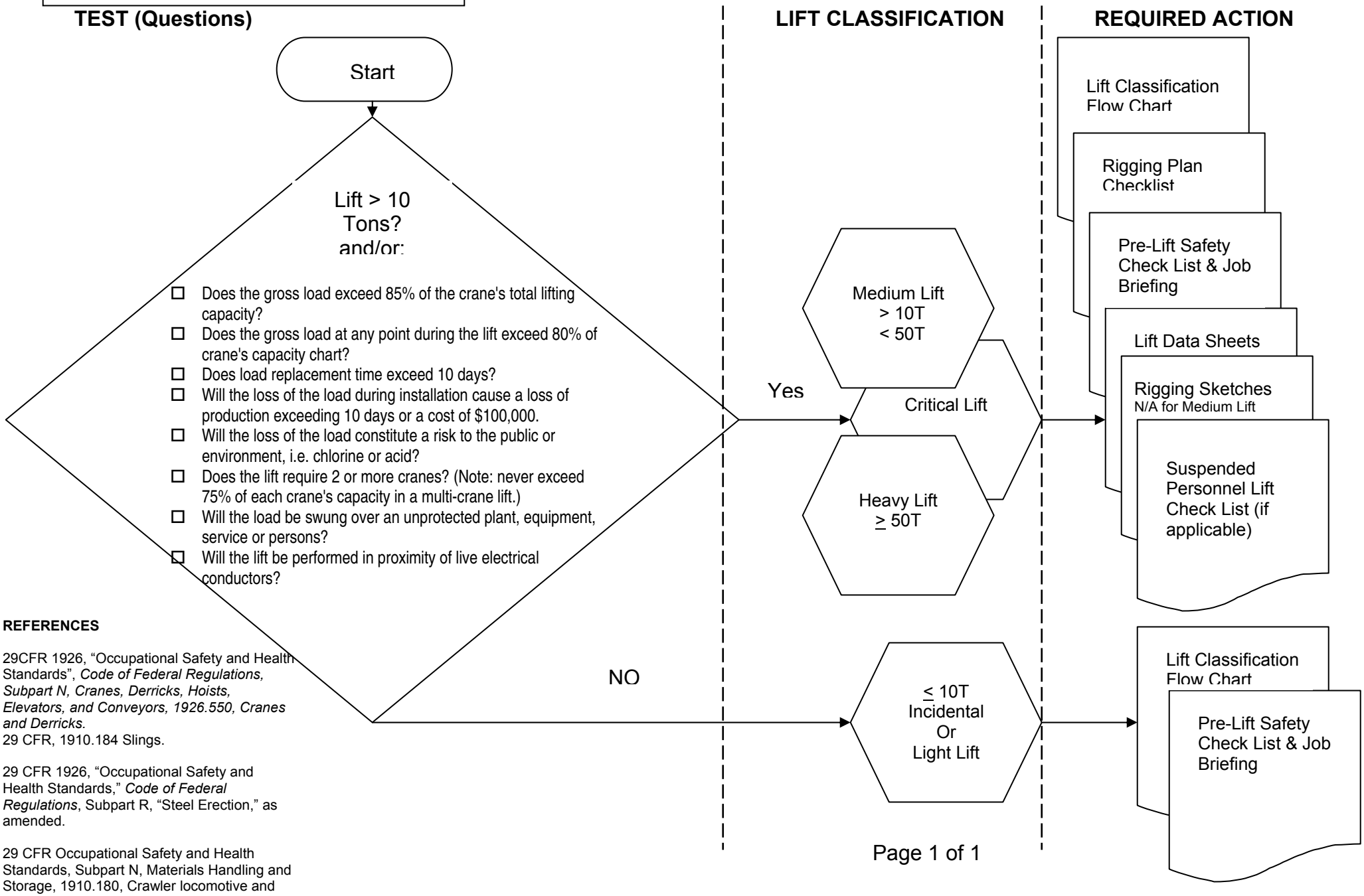
INSTRUCTIONS: Ask yourself the questions in decision block; Check off questions that apply; follow the Yes or No; circle the Yes or No and initial; Fill out the required forms listed under Required Action and provide required data to PMCS 7 Calendar days prior to lift.
Company Name: _____Signature: _____ Print: _____ Date: _____

PMCS CP No.:

LIFT CLASSIFICATION FLOW CHART



REFERENCES

29CFR 1926, "Occupational Safety and Health Standards", *Code of Federal Regulations, Subpart N, Cranes, Derricks, Hoists, Elevators, and Conveyors, 1926.550, Cranes and Derricks.*
29 CFR, 1910.184 Slings.

29 CFR 1926, "Occupational Safety and Health Standards," *Code of Federal Regulations*, Subpart R, "Steel Erection," as amended.

29 CFR Occupational Safety and Health Standards, Subpart N, Materials Handling and Storage, 1910.180, Crawler locomotive and truck cranes.

Company Name:
Project Description:
PMCS CP:

Pre-Lift Safety Checklist (Required for Incidental/Light, Medium, Critical & Heavy Lifts)

Project _____ Inspection Date _____

Crane Make _____ Model _____ Serial No _____

Crane Manufacturer _____

Equipment No _____ Hours _____ Crane Capacity _____

Lift Date _____ Lift Weight _____ Lift Dimensions ____ x ____ x ____

Weather Conditions _____

Pre-Lift Verifications

Verify that you satisfy all items in this checklist and all other safety precautions before making the lift. Strictly adhere to all precautions and instructions on the decals attached to the crane. Check or complete each item to document verification.

1. Verify acceptability of lines and fastenings (no frayed cables, worn parts, etc.)
   - ☐ Load Lines ☐ Boom Lines ☐ Sheaves and Blocks
2. Verify acceptability of boom members and connections
   - ☐ Correct Alignment ☐ No Bent/Defective Members ☐ Boom Pins/Keepers in Place
3. Verify acceptability of machinery
   - ☐ Engine ☐ Power Take-Off and Clutch ☐ Winch Drums and Gears
   - ☐ Brakes ☐ Safety Dogs ☐ Controls
   - ☐ Crane Tracks/Truck Mounting ☐ Outriggers ☐ Cab
4. Verify acceptability of rigging accessories
   - ☐ Size ☐ Capacity ☐ Condition
5. Verify acceptability of the following:
   - ☐ Boom Length ☐ Radius ☐ Load Line Reeving
   - ☐ Crawlers/Outriggers Fully Extended (as req'd) ☐ Crane Level
6. Verify acceptability of ground conditions
   - ☐ Ground can Take Crane Loading ☐ No Muddy/Uneven Terrain
   - ☐ Fill (if any) Compacted ☐ Mats Req'd (verify number size)
7. Verify overhead power line clearances ☐
8. Verify crane operator qualifications ☐
9. Verify the lifting path is free of obstructions ☐
10. Use tag lines ☐
11. Position a signal person in clear view of the crane operator OR establish radio communication ☐

Company Name:
Project Description:
PMCS CP:

Pre-Lift Safety Checklist (Required for Incidental/Light, Medium, Critical & Heavy Lifts)

12. Perform a preliminary lift by slowly raising and lowering the load a few inches and checking the function of all equipment AND suspension of the load ☐

13. Verify the rigging scheme agrees with the approved rigging diagrams

☐ Yes ☐ No If NO, explain on page 2

14. Verify the following weights and look for discrepancies:

A. Home office engineering calculated ☐

B. Rigging department calculated ☐

C. Field Engineer calculated ☐

D. Vendor calculated ☐

E. Scale or load cell weight ☐

15. When the erection weight is within 5% of the crane chart capacity, either weigh the load on scales or with an approved load cell to protect against overloading the crane and rigging attachments ☐

16. Inspect and verify the acceptability of the entire crane assembly, auxiliary equipment, engineering data and site prior to making the lift ☐

17. Verify current crane, hook, wire rope, sling and rigging hardware inspections completed.

☐ Yes ☐ No

Additional Comments:

Rigging Engineer _____ Date _____

Hoisting and Rigging Superintendent _____ Date _____

Company Name:
PMCS Project Description:
PMCS CP:

(Required for Medium, Critical & Heavy Lifts)

Project Name:		Date:	
Preparer:			

	Rigging Plan Initial Considerations	**Yes**	**N/A**
1	Address soil conditions and site terrain for lifting equipment and to ensure stability along the haul path and at location of the lift.	☐	☐
2	Consider weather conditions, for extreme conditions added precautions may be required (i.e. extreme cold, heat, rain, wind, etc…)	☐	☐
3	Research underground utilities along the haul path or at the lift location to avoid damage to existing utilities and to ensure adequate ground support.	☐	☐
4	Verify the location of overhead power lines to ensure required clearances are maintained during both heavy haul and lifting operations.	☐	☐
5	Check lift equipment and rigging hardware requirements to ensure equipment is available.	☐	☐
6	Ensure access of haul and lift equipment into and out of the lift area is adequate. Assembly and disassembly of cranes/equipment should also be considered.	☐	☐
7	Verify whether or not escorts are required to ensure safe movement of the load.	☐	☐
8	Consider the need for a contingency plan based on a list of typical risk scenarios.	☐	☐
	Rigging Plan Preparation Minimum Requirements		
1	Review Vendor Drawings (equipment weight, location of center of gravity, recommended of specified lifting points, and special handling requirements).	☐	☐
2	A list of the crane or hoisting equipment to be used in the work operation.	☐	☐
3	A sketch showing the position and travel path of haul equipment, hoisting equipment, lift crane, trailing crane, initial location of the item to be lifted, and the final “set” position of the lifted item.	☐	☐
4	A layout of the work area, including the locations of all obstacles and potential interferences.	☐	☐
5	Haul and lift path minimum clearances, turning radius, and clearance requirements from existing facilities, utilities and overhead power lines.	☐	☐
6	Definition of the item to be lifted/hauled including verified weight and authorized attachment of lift points.	☐	☐
7	Equipment manufacturer drawings showing component weight, shipping skid weight, designated rigging attachment points, and center of gravity should be attached to the rigging plan.	☐	☐
8	Actual shipping weight tickets should be attached to the rigging plan (if available)	☐	☐
9	Definition of special soil preparation and crane mat requirements (if any)	☐	☐
10	A sketch showing the locations of underground utilities that could affect the haul route and/or rigging work operation of that require special clearances or cribbing to perform the work.	☐	☐
11	Rigging equipment to be used for the rigging operation, including slings, spreader beams, shackles, hooks and other components in the load chain.	☐	☐
12	Calculations used to determine the forces applied to each rigging component must be provided for all heavy lifts. Standard rigging reference charts may be used to determine sized and type of the components required.	☐	☐
13	Load capacity charts and notes for cranes or other equipment used to perform the lift. These shall be posted in the crane and reference in the rigging plan.	☐	☐
14	A description of the communication method to be used by equipment operators and rigging crews during completion of the lift.	☐	☐
15	Special considerations, such as the effects of wind on the ability of crews to safely complete the lift.	☐	☐
16	Any special precautions that the work crew must be aware of prior to making the lift (e.g. removal of temporary shipping skids prior to lifting).	☐	☐

(Required for Medium, Critical & Heavy Lifts)

Company Name:
PMCS Project Description:
PMCS CP:

LIFT DATA SHEET -- Single Crane Pick and Set

Project:		**Originator**		**Date**	
Job No.:		**Checker**		**Date**	
		Revision		**Date**	

Pay Load Description:

Length:	Height:	Width/Diameter:	Weight:	LBS.

Pay Load Weight includes all applicable internals, trays, insulation, fireproofing, etc., based on attached calculations
Reference Drawings:

Crane 1 Configuration
Crane Type:
Boom Type:
Boom Length:
Tip Type:
CWT's (Main):
Superlift CWT's:
Block Size:
Line Size:
Parts of Line:
Parts/Maximum :
Jib Type:
Jib Length:
Jib Offset:

Crane 1 Fixed Weights (Pounds)

Crane Items			**Weight**
Main Load Block			
Wire Rope - Load Line in Falls			
Jib Block			
Aux. Boom Sheaves (deduct)			
Jib (deduct)			
Rigging			
Item	Size	Load Rate	
Spreader			
Slings			
Shackles			
Rigging B.O.M.			
Total Fixed Weight Crane 1			

% Pay Load Weight to Crane 1 ____ %

Total Pay Load Wt. X % Crane 1 ____

Crane 1 Lift Weight Summary (Pounds)

Total Fixed Weight	
Portion of Pay Load Weight	
Total Lifted Load	

Pick/Carry Capacity Crane 1

Actual Pick Radius (Feet)	
Chart Radius (Feet)	
Chart Capacity (Pounds)	
Percentage Capacity	

Set Capacity Crane 1

Actual Set Radius (Feet)	
Chart Radius (Feet)	
Chart Capacity (Pounds)	
Percentage Capacity	

Calculated Pay Load Weight

Description	Quantity	Calculation Extensions	Weight
Pay load/Equipment/Vessel			
Internal Components (i.e.trays)			
Insulation			
Fireproofing			
Ladders & Platforms			
Pipe Downcomers			
Other Equipment attached			
Fixtures			
Fluids			
Total Estimated Pay Load Weight			

Company Name:
PMCS Project Description:
PMCS CP:

LIFT DATA SHEET -- Single Crane Pick and Set

Project:		**Originator**		**Date**	
Job No.:		**Checker**		**Date**	
		Revision		**Date**	

Pay Load Description:

Length:	Height:	Width/Diameter:	Weight:	LBS.

Chart Capacity (Pounds)		Chart Capacity (Pounds)	
Percentage Capacity		Percentage Capacity	

Calculated Pay Load Weight

Description	Quantity	Calculation Extensions	Weight
Pay load/Equipment/Vessel			
Internal Components (i.e.trays)			
Insulation			
Fireproofing			
Ladders & Platforms			
Pipe Downcomers			
Other Equipment attached			
Fixtures			
Fluids			
Total Estimated Pay Load Weight			

Rigging Bill of Material's

Item	Product Description	Size	Rating	Qty.	Units	Length	Wt./Unit	Weight
Total Weight:								

Pertinent Information: (Attach Drawing or Sketch if required)					
Minimum Clearance from Boom to Obstruction:					
Minimum Clearance from Boom to Lifted Piece or Spreader:					
Ground Bearing Pressure:		Actual:		Allowable:	

Special Instructions or Restrictions for Crane, Rigging, Lift, etc.:

Company Name:
PMCS Project Description:
PMCS CP:

NOTE: If two crane lift not applicable, draw a single diagonal line across two crane lift data pages and sign the last

LIFT DATA SHEET -- Two Crane Pick and Set

Project:		**Originator**		**Date**	
Job No.:		**Checker**		**Date**	
		Revision		**Date**	

Pay Load Description:

Length:	Height:	Width/Diameter:	Weight :	LBS.

Pay Load Weight includes all applicable internals, trays, insulation, fireproofing, etc., based on attached calculations
Reference Drawings:

Crane 1 Configuration	
Crane Type:	
Boom Type:	
Boom Length:	
Tip Type:	
CWT's (Main):	
Superlift CWT's:	
Block Size:	
Line Size:	
Parts of Line:	
Parts/Maximum:	
Jib Type:	
Jib Length:	
Jib Offset:	

Crane 2 Configuration	
Crane Type:	
Boom Type:	
Boom Length:	
Tip Type:	
CWT's (Main):	
Superlift CWT's:	
Block Size:	
Line Size:	
Parts of Line:	
Parts/Maximum:	
Jib Type:	
Jib Length:	
Jib Offset:	

Crane 1 Fixed Weights (Pounds)

Crane Items			**Weight**
Main Load Block			
Wire Rope - Load Line in Falls			
Jib Block			
Aux. Boom Sheaves (deduct)			
Jib (deduct)			
Rigging			
Item	Size	Load Rate	
Spreader			
Slings			
Shackles			
Rigging B.O.M			
Total Fixed Weight Crane 1			

Crane 2 Fixed Weight (Pounds)

Crane Items			**Weight**
Main Load Block			
Wire Rope - Load Line in Falls			
Jib Block			
Aux. Boom Sheaves (deduct)			
Jib (deduct)			
Rigging			
Item	Size	Load Rate	
Spreader			
Slings			
Shackles			
Rigging B.O.M			
Total Fixed Weight Crane 2			

% Pay Load Weight to Crane 1		%	% Pay Load Weight to Crane 2		%
Total Pay Load Wt. X % Crane 1			Total Pay Load Wt. X % Crane 2		

Crane 1 Lift Weight Summary (Pounds)

Total Fixed Weight	
Portion of Pay Load Weight	
Total Lifted Load	

Crane 2 Lift Weight Summary (Pounds)

Total Fixed Weight	
Portion of Pay Load Weight	
Total Lifted Load	

Pick/Carry Capacity Crane 1

Actual Pick Radius (Feet)	
Chart Radius (Feet)	
Chart Capacity (Pounds)	
Percentage Capacity	

Pick/Carry Capacity Crane 2

Actual Pick Radius (Feet)	
Chart Radius (Feet)	
Chart Capacity (Pounds)	
Percentage Capacity	

Company Name:
PMCS Project Description:
PMCS CP:

LIFT DATA SHEET -- Two Crane Pick and Set

Project:		**Originator**		**Date**	
Job No.:		**Checker**		**Date**	
		Revision		**Date**	

Pay Load Description:

Length:	Height:	Width/Diameter:	Weight :	LBS.

Set Capacity Crane 1

Actual Set Radius (Feet)	
Chart Radius (Feet)	
Chart Capacity (Pounds)	
Percentage Capacity	

Set Capacity Crane 2

Actual Set Radius (Feet)	
Chart Radius (Feet)	
Chart Capacity (Pounds)	
Percentage Capacity	

Calculated Pay Load Weight

Description	Quantity	Calculation Extensions	Weight
Pay load/Equipment/Vessel			
Internal Components (i.e.trays)			
Insulation			
Fireproofing			
Ladders & Platforms			
Pipe Downcomers			
Other Equipment attached			
Fixtures			
Fluids			
Total Estimated Pay Load Weight			

Rigging Bill of Material's - Crane 1

Item	Product Description	Size	Rating	Qty.	Units	Length	Wt./Unit	Weight
Total Weight:								

Rigging Bill of Material's - Crane 2

Item	Product Description	Size	Rating	Qty.	Units	Length	Wt./Unit	Weight
Total Weight:								

Company Name:
PMCS Project Description:
PMCS CP:

LIFT DATA SHEET -- Two Crane Pick and Set

Project:		**Originator**		**Date**	
Job No.:		**Checker**		**Date**	
		Revision		**Date**	

Pay Load Description:

Length:	Height:	Width/Diameter:	Weight :	LBS.

Minimum Clearance from Boom to Obstruction:			
Minimum Clearance from Boom to Lifted Piece or Spreader:			
Ground Bearing Pressure:	Actual:	Allowable:	

Special Instructions or Restrictions for Crane, Rigging, Lift, etc.:

NOTE: Job titles are generic and may not apply to your organization.
Have the person who is responsible for the functions listed below sign the appropriate blocks.

CONTRACTOR APPROVALS (As Applicable):

Manager: _____ (Heavy & Critical Lifts)

Hoisting and Rigging Superintendent: _____ (Medium, Heavy & Critical Lifts)

Field Support Technical Operations Manager: _____ (Medium, Heavy & Critical Lifts)

Field Operations General Superintendent: _____ (Heavy & Critical Lifts)

Certified Rigging Engineer: _____ (Heavy & Critical Lifts)

Project/Functional Manager: _____ (Critical Lifts)