

CTPAC – PROPOSAL ADDENDUM

SUBJECT: Allow 5 axles Cranes Max. Tridem Bonus Purple Weight
DATE: February 22, 2010
POLICY: TPPM 2009-02 addendum
Reference: CTPAC WG4-111203-002, WG7-090104-001, WG4-080708-01

I. OBJECTIVE

To increase the allowable weight loads on tridem axles to 60,000 pounds for routine permit issuance. To increase transportation efficiencies and promote safety qualify for tridem bonus weights, the Department required that the equipment "not be a crane." This proposal seeks to revise this requirement "not be a crane" and allow tridem bonus weights for the 5 axle mobile crane with one (1) qualifying tridem axle group and up to 60,000 pounds bonus purple weight. For these cranes to qualify for tridem axle's bonus purple weight, the equipment will have:

- ~~Not have a~~ No boom dolly or trailer.
- No more than one (1) tridem group.
- Must be 9' 10" wide
- Maximum axles spacing up to 10'- 4" for qualifying tridem axle group.
- Not be close coupled on any axles.
- Hydrogas Suspension

Cranes with boom dollies/trailer are excluded from this proposal.

II. BACKGROUND

On March 1, 2006, the Department implemented TPPM 2006-04 Tridem Bonus Purple on a qualifying tridem axle group. TPPM 2006-04 allowed other segments of the industry with a tridem configuration bonus purple weight. To qualify for tridem bonus weights, the Department required that the equipment "not be a crane." At that time, all cranes were excluded by agreement to allow additional time for discussion and gathering additional information.

The Department currently only allows a 4 & 5-axles crane the maximum allowable green weight for tridem configuration up to 52,500 pounds depending upon axle spacings. Under the TPPM 2009-02 and prior TPPM 2006-04, other fixed load units such as drill rigs, tow trucks, concrete pumps have been allowed tridem bonus weight up to 60,000 pounds. The proposed crane configuration, with boom weights contained on the carrier and not on dollies or trailer, is similar to the above fixed loads.

Industry requests that these types of cranes be allowed to apply and approve for bonus tridem weights per TPPM 2009-02.

III. EXISTING DOCUMENTATION

- TPPM 2006-04 - Tridem bonus purple weight on a qualifying tridem axle group.
- TPPM 2009-01 – Extralegal weight for 10'- 4" axle spacing on 3 fixed in-line axles for Tridems.
- TPPM 2009-02 - Green and Purple Weight Chart plates 25-4 and 25-5 for Tridem.

CTPAC – PROPOSAL ADDENDUM

IV. CURRENT PRACTICES

A 5-axle crane with a single tridem axle configuration that exceeds the maximum allowable weight of 52,500 pounds depending upon axle spacing only has a couple choices and both are costly and inefficient:

The crane must be broke down to the point that the weight is within the allowable 52,500 lbs and those parts would then have to be transported on an additional truck.

The crane has to be equipped with a dolly unit, so the additional weight on the crane would have to be transferred onto the dolly to reduce weight of the crane. The dolly isn't something that the department encourages.

V. NEW PROPOSED CHANGES

This proposal seeks the following changes:

- TPPM 2009-02 – Tridem Bonus Purple – delete the requirement of "Not be a crane" and replace with the following:

For cranes to qualify for tridem axle's bonus purple weight, the equipment will have:

- ~~Not have a~~ No boom dolly or trailer.
- No more than one (1) tridem group
- Maximum axles spacing up to 10'-4" for qualifying tridem axle group.
- Not be close coupled on any axles.
- Hydrogas suspension
- TPM - Chapter 3 Section 305.3.6 – Add to this section - "Allow a qualifying 5-axle crane up to maximum Tridem bonus purple weight."

VI. BENEFITS/IMPACTS/JUSTIFICATION

The new 140 Ton Class Hydraulic Crane brings the new technology. Increased efficiency and productivity are the driving forces of economic improvement. This is especially true in the mobile crane industry which is constantly called upon to provide these two components to virtually every construction site in the state. One additional component, safety, is added to this mix. Newer, larger mobile cranes meet these requirements in ways that older smaller machines cannot.

The increased weight of safer, stronger hydraulic lifting capacity is the key component adding additional efficiency, productivity and safety to performing our work. The lifting capacity of this equipment class has steadily risen over the past 15 years and so has the weight. Manufacturers are developing higher capacity machines that fill a need for the mobile crane industry and its customers—including Caltrans itself. This equipment will eliminate having to use two smaller machines on crowded job site and replace some of the larger cranes that are doing the work the smaller cranes couldn't do.

The immediate benefits by allowing the additional weight for the 140 Ton Class Crane will also reduce the number of trips the heavier 200 Ton Class Cranes has been making. The 200 Ton will now only be dispatched out when the need exceeds the capability of the 140

CTPAC – PROPOSAL ADDENDUM

ton class, which is the void the crane industry has been in desperate need of and also will be a savings and benefit:

- Increase public safety when traveling with a 5 - axle vs. a 7-axle, with the increased length. The driver's visibility has been significantly improved and improved mobility to maneuver safely and quickly if necessary to and from the projects. The weight and overall length is less for shorter stopping distance in uncertain traffic conditions.
- 10' wide spreads the weight across a larger foot print and increases turning stability.
- Increase jobsite safety, by reducing the number of cranes is in confined spaces, those working around it.
- Reduce pavement and infrastructure wear by now having a smaller crane available to industry, the 140-ton class cranes can do that share of work the 200 Ton has been doing for years. The 200 Ton Class will no longer have to show up on a jobsite, much bigger than necessary to maintain the lift, it will now be the right size crane for the right size job. This new addition to the Contractors Equipment Fleet and the crane rental industry will not eliminate the 200 Ton by any means, there will always be the need, the need for both. The 140 Ton Class will fill that immediate void that the 200 Ton is unable to do as efficiently as the 140 Ton.
- Hydrogas Suspension gives the operator a safe and smooth ride, which is also another pavement friendly-saving technology.
- New technology in both emissions and control systems that operate more productively and will reduce cost to industry and related businesses.
- Meets all regulatory requirements including the off-road diesel rules for heavy equipment with the new technology that has recently come available. This machine with its Tier 3 engines will be compliant through 2017 without further modification.
- Improve efficiency and productivity where one machine of this class will have one crew instead of two or more for multiple smaller machines needed to perform the same task.
- No load transfer is necessary when most dollies are required and will not create a short coupled situation.
- Safety has been increased with the next generation operator's cab by improved visibility and with better ergonomics reducing operator fatigue.
- Reduce the jobsite footprint by having one machine do the work of two smaller units in those cases where the need is up to a 140 ton machine.
- increase safety for the operator and jobsite, cutting the number of machines and people in the danger zone by half in the case of operating two 90-ton machines
- easier on-road mobility, 5-axle vs. 7-axle (length)
- dolly jobsite accessibility issue resolved by not requiring one
- travel with boom over the front as originally designed, reduced costs for not having to employ an aftermarket dolly (and there are safety issues with dollies as well)
- reduce additional set up and breakdown cost, normally performed on overtime required with the 200 ton class
- purchase price for a 140-ton machine versus a 200-ton unit or two 90-ton cranes would be considerably less and that would reduce that hourly rate that is passed on to the contactor.

We also polled several crane owners in the northern California and in southern California to see how many times over the past 6 month period if they had a 140 Ton Class Crane in their rental fleet, how many times would they have been able to do the job for their customer more

CTPAC – PROPOSAL ADDENDUM

efficiently with the 140 vs. the 200. The answer came back 60/40 and 70/30, their 200 Ton would have worked and traveled less than then 140 ton.

We also meet with several of the Contractor Associations and let them know that there is a 140 Ton Class Crane that is currently being reviewed by Caltrans to be able to operate in California as a 5-axle and not a 7-axle. The first thing that is said, we don't see a need for it as a 7-axle, but as a 5-axle it will be a world of difference.

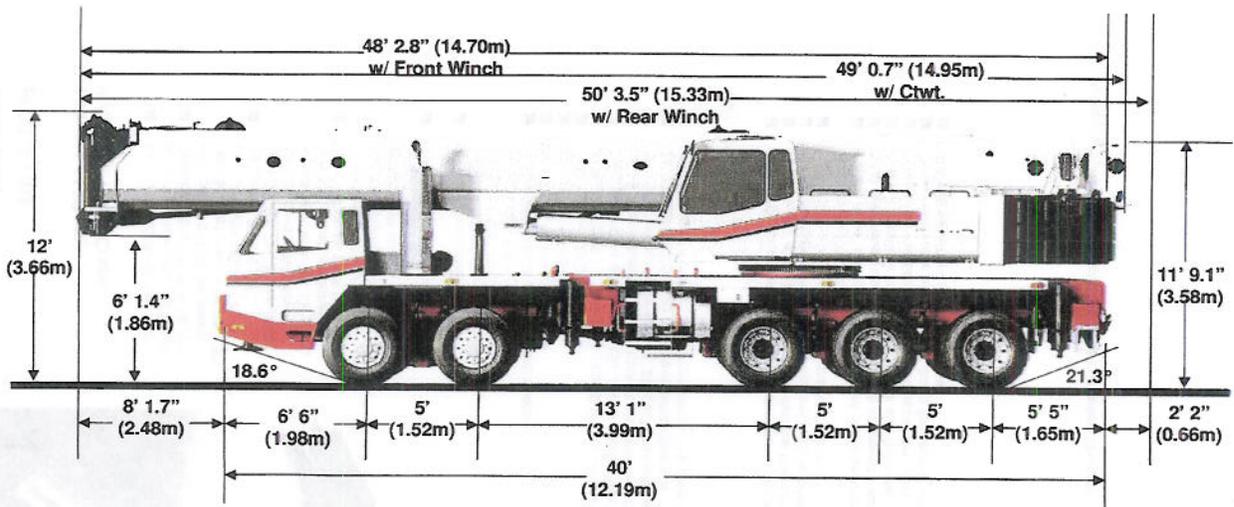
This new policy would give clear visibility to crane manufactures by designing machines to meet uniform state standards, not exceed 60,000 lbs bonus Purple weight on a qualifying tridem axle group for a crane.

This new innovative 140 Ton Class Crane couldn't have come at a better time, as we are coming out of a recession and will now give the construction industry a new jobsite tool that will work more efficiently and safely for both the industry, the contractors, their customers, which one of the largest is Caltrans. This will truly benefit everyone to have the sharpest and best tool in the tool box.

We appreciate your consideration of the 60,000 lbs Tridem for cranes.

Requestor's Names: Telephone Numbers:

Alvin Mangalindan – Crane Owners Association	707-552-6040
Neil Goodale – Mobile Crane Owners Group	714-633-2100
Ed Gibson - Link-Belt Cranes	859-421-0889
Steve Nixon – Nixon-Egli Equipment Company	909-930-1822
Greg Dineen – Greg Dineen & Associates	760-249-4376



47,250 lbs

60,000 lbs

107,250 lbs

140 Ton Truck Crane 5 Axle

HTC-3140 Hydraulic Truck Crane

Link-Belt HTC-3140

140-ton (120 mt) Hydraulic Truck Crane



- 41.4-162 (12.6-49.3m) five section formed latching boom
- Optional-31-55 ft (9.4-16.7m) two-piece, bi-fold, on-board lattice attachment with 2°, 15°, 30°, and 45° offsets
- Optional-10-31-55 ft (3.0-9.4-16.7m) three-piece, bi-fold, on-board lattice attachment with 2°, 15°, 30°, and 45° offsets-optional
- Optional-three 18 ft (5.5m) fly extensions plus 55 ft (16.7m) provide a total attachment length of 109 ft (33.2m)
- 278 ft (84.7m) maximum tip height
- Overall dimensions:
 - Height: 12' (3.66m)
 - Width: 9' 10" (3.00 m)
 - Length: 49' 5.4 " (15.07 m)
- 68.4 mph (110.08 km/hr) travel speed
- 28' 10" (8.56 m) wheel base
- Front tires – 445/65R22.5
- Rear tires – 12R24.5
- Caterpillar C15 15.2L 550 hp (410.0 kW) lower diesel engine
- Caterpillar C6.6 6L 203 hp (151.3 kW) upper diesel engine
- ZF AS-Tronic automated 12-speed transmission with 4-speed auxiliary transmission
- 27' (8.23 m) outrigger spread, 22' (6.71 m) outrigger base
- 21,022 lbs (9 535.4kg) maximum winch line pull
- 419 fpm (127.7m/min) maximum winch line speed

KEY FEATURES:

- Excellent transportability – can be configured to meet some of the toughest transportation laws
- All manually offsettable fly options feature four offset positions of 2°, 15°, 30°, and 45°
- All hydraulically offsettable fly options feature offset positions from 2° to 45°
- New 10' (3.0m) fly that is integral to on-board fly with over 20 ton (18.1 mt) maximum capacity and two line lift procedures
- "Stow 'n go" outrigger pontoons are easily secured for transport
- Next generation operator's cab with improved visibility and ergonomics
- Pull-out CabWalk for easy access to and from the operator's cab
- Integral air condition standard on upper and lower cabs
- Large removable engine hood doors for ease of service
- Job site travel with counterweight