Report

Title: Target guided algorithms for the container pre-marshalling problem
Authors: Ning Wang, Bo Jin, Andrew Lim
Manuscript No.: OMEGA-D-14-00192$R1$

The authors have addressed all comments of the first review. However, the comparison of the computational results of the lower bound show that there is almost no improvement compared with Bortfeldt & Forster (2 of 3 bounds are identical, one bound is improved from 57.231 to 57.233). As a consequence, the presented new lower bound is more a theoretical contribution than a practical one. On the other side, this is not the focus of the paper. The introduction of CPMPDS, the at least theoretical improvement of the lower bound, and the presentation of an heuristic algorithm, that outperforms the state-of-the-art heuristic for CPMP, seem to justify the publication of this paper.

Because there are still some minor issues that should be worked over, I recommend a minor revision.

Minor issues

1. Page 3: "Transfer lanes are called dummy stacks": The temporary stacks that are located at the transfer lanes are called dummy stacks.

2. Page 3: Figure 2: There are two trucks in 2(a). These trucks are on different lanes. As far as I know, there are parking and driving lanes. Maybe, the authors should mark the lane, they are calling transfer lane. Are both lanes transfer lanes?

3. Page 3: "hence, they cannot be implemented directly at terminal layouts as shown in Figure 2(a)": Algorithms for CPMP can be implemented for these layouts. They do not use any dummy stack, but these algorithms are able to find feasible solutions for CPMP.

4. Page 5 (and other): "$S \times H$": In my opinion, the $\times$-symbol is misleading. I always read it as the Cartesian product. Better is "$S \cdot H$".

5. Page 15: "...guarantees a solution for any feasible instance.": What is a feasible instance and how is it defined? Do the authors mean "'...guarantees a feasible solution for any instance."?

6. Page 18: "The second evaluation scheme prefers small two-tuple $(f(c,s), h(s) - uf(s))$...": How do the authors compare two-tuples? They have to define something like "$(a,b) < (c,d)$, iff $a < c \vee a = c, b < d$"