

MRBC Transport Equipment

There is no existing Interface Control Drawing (ICD) for the Multi-Role Bridging Company (MRBC) transport equipment. ATPD 2393 requires the BEB to be transported by a Common Bridge Transporter (CBT) while the CBT is towing a loaded Palletized Load Handling System Trailer (PLST).

The following information and the attached drawings are provided for reference only. The Government does not guarantee the accuracy of any dimensions in this document or attached drawings. Additionally, there is significant play in the MRBC transport system connections, so all dimensions have a wide tolerance.

The Government strongly recommends all offerors take their own measurements of the MRBC equipment provided at Selfridge Air National Guard Base. To schedule an appointment to measure the MRBC equipment, email Tuyen Huynh with the Equipment Display Request Form (can be found on the BEB website underneath the ‘Private Equipment Viewing/Demonstration’ Section).

Equipment Description

The CBT is a truck which can carry multiple types of racks and tow a PLST. The PLST can carry multiple types of racks. The length of the cargo carried by the CBT is limited when towing a loaded PLST. The Bridger Adapter Pallet (BAP) protrudes further forward than any other PLST load. The existing BEB is too long to be carried on the CBT while the CBT is towing a PLST loaded with a BAP. This configuration is shown in Figure 1 below.

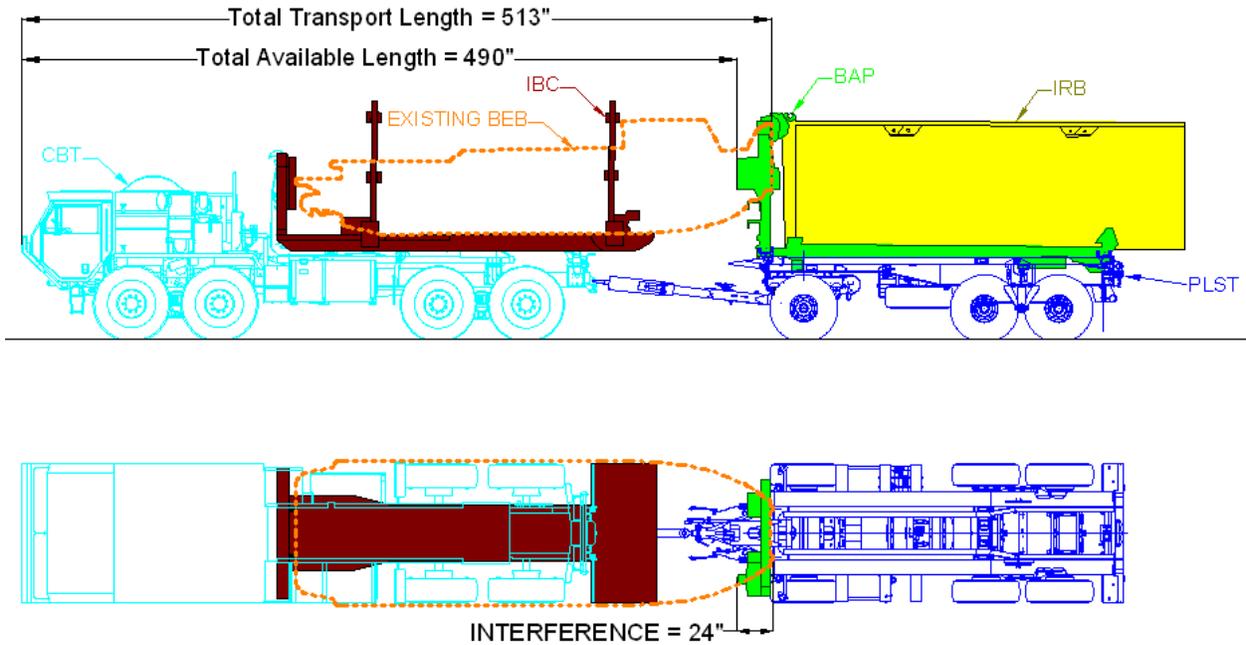


Figure 1: CBT loaded with IBC/BEB towing a PLST loaded with BAP/IRB

The furthest forward points of the BAP are the winch hydraulic fitting on one side and ladder rungs on both sides. These two points are shown in Figure 2 below.



Figure 2: BAP winch hydraulic fitting and ladder rungs.

Turning

A CBT towing a PLST has two pivot points when turning. The first pivot point is where the drawbar attaches to the CBT. The second pivot point is the center of the turn table for the front wheels of the PLST. The offset angles of the first and second pivot points are shown as Angle 1 and Angle 2 respectively in Figure 3 below.

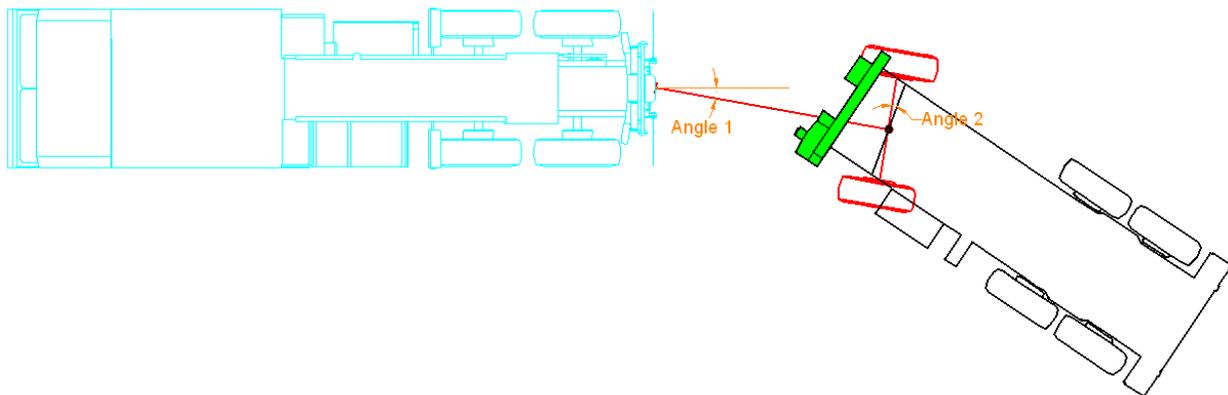


Figure 3: Angles of pivot points between CBT and PLST

The minimum turning diameter of the CBT is approximately 105 feet to the outermost point of the CBT (wall to wall). When a CBT towing a PLST is in a 105 foot diameter turn, Angle 1 is

UNCLASSIFIED

between 18 and 20.5 degrees from the straight ahead angle, and Angle 2 is between 16 and 18 degrees from the straight ahead angle. These angles vary from one CBT to another and when the CBT is turning to the left or to the right.

The clearance between the CBT and PLST is further decreased when entering and exiting a turn. When the CBT is entering a turn, Angle 1 begins to change before Angle 2. That is, when entering a turn, the CBT/Drawbar connection begins to pivot before the front wheels of the PLST begin to pivot.

Similarly, when the CBT exits a turn, Angle 1 begins to change before Angle 2. That is, when exiting a turn, the CBT/Drawbar connection begins to straighten before the front wheels of the PLST. Exiting the turn creates the worst case clearance between the CBT and PLST loaded with a BAP.

Attachments:

CBT_Enterung_Turn.dxf

CBT_Exitung_Turn.dxf

MRBC_Transport_Equipment.dxf