

# Terrafirma Roadways Method Statement for laying Dura Base Mats with truck mounted Epsilon crane



# Banksman



Fig1

**Never** reverse without a banksman, make sure he is in full view in the rear view mirrors.



Fig1a

Fig1b

**Under NO circumstances are personnel allowed to climb on to the bed, or stand on the loaded mats. Fig1a The only area on the bed the crew are permitted, is between the two front bulkheads which is accessed using the pull out ladder, located above the diesel tank.**

## Mounting the Crane



Fig2



Fig3

When mounting or dismounting the crane keep three limbs in contact with the steps and hand rails at all times. When seated fasten the seat belt Fig3

## Stabiliser legs



Fig4



Fig5

Insert the leg locking pin Fig4. Deploy both stabiliser legs to the maximum available space, making sure that the feet are on the mats, or on ground capable of withstanding

the load of the feet, if you are unsure of the load bearing of the ground, use spreader plates.

When laying a single width road, it is advised where possible to keep the truck as close to the near side of the mats, this will allow full deployment of the off side stabiliser leg, make sure the near side leg is out and down on the mat.

In this configuration only the off side stabiliser leg is full out, this is completely safe as long as the crane is **only** slewed over the off side, the cranes computer will allow this as the leg is fully out. Further more the crane is off set to the near side, resulting in higher and safer lift capacity on that side of the vehicle.

## Unfolding the crane



Fig 6



Fig 7

First extend the extension to clear the retainer bracket by **NO** more than 75mm/100mm. Lift the main boom out of it's transport bracket, keep lifting until the boom is level with you.



Fig8

Fig9

Fig10

Fig11

Start to release the second (dipper) boom while still lifting the main boom. It is important that the main boom is in the position in Fig9 when the dipper boom goes over centre. If the main boom is too low, the Easy Fold system will not work correctly and the dipper with the grab will drop some distance before the Easy Fold system picks it up.

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Terrafirma Roadways a division of Robertson Envirosystems Ltd 3328962

## The Grab

Locate all four fingers of the grab in the pin holes either side of the centre pin, close the grab and lift mat off truck.

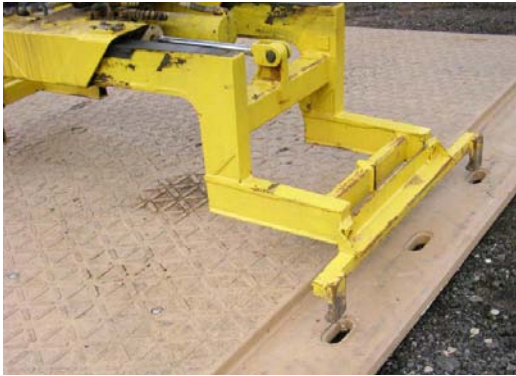


Fig12



Fig13

**Never** swing the mat over your crew member and **never** allow your crew to walk under the raised mat.

## Laying mats



Fig 14



Fig14a

The safest & quickest way to install Dura Base mats is to lay the top lip on the lower one, i.e. lay the first mat with the top lip towards the truck, this will leave the lower lip ready to receive the next mat. Line the mat up against the previous mat, making sure the pin holes line up, lower the mat so it is in contact and release the grab. Lift the grab straight up clear of the crew before slewing the crane round for the next mat. Lower lip Fig14a



Fig15/16

Pins clean or dirty are kept safely stored in the 2 pin boxes. Be careful when opening a loaded box for the first time on site, as the stacked pins could fall forward.



Fig 17



Fig18

Once the mat has been placed, use the pry bar to centre the holes of the mats. Then place pin in pin hole, use a minimum of 2 pins per mat.



Fig 19 Use T bar to turn pin to lock



Fig 20 Pin in locked position



Fig 21 unlocked

Repeat this until the crane has reached its limit, in terms of reach. Place the crane over the mats on the truck, Fig22 lift the stabiliser legs and slowly reverse the truck so that the rear bumper is just past the last mat by around 300mm. This will allow the laying of 4 mats in line without moving the truck again. Fig23



Fig22



Fig23



Fig 24

Mat correctly lined up and pinned. If ground conditions are very wet or muddy, more pins might be required when joining the mats. This will make the joint stiffer and stop mud and water coming up through the open pin holes.

## Laying a pad or standing area



Fig 25

To lay a pad or standing area, simply lay a mat beside the previous run placing the overlap on top of the lower lip and pin. This can be repeated as often as required to build any size of pad or road, as in Fig 25

## Lifting Dura Base mats

**Unlock the pins with the T Bar. If pins have been placed in the pin holes that the grab fingers locate in, remove the pin with the pliers as in fig 26**



**Fig 26**

**Use the truck mounted crane and grab to recover the mats. Follow the same instructions and safe working practices when recovering as used when installing to lift mats. Place each mat against the front bulk head and within the two rearwards uprights, until a maximum of 22 mats have been loaded.**



**Fig27**

Upon completion and before driving on the highway, the load is to be secured using the poles to place the load binding straps on the load and tightened with the built in ratchets along the near side.



**Fig 28**



**Fig 29**