

## Stuck booms

We reported on VertikalNet that two Niftylift booms that had been delivered to a local council for work on a sculpture in the middle of a large and very busy roundabout. They then proceeded to get the machines stuck up to their axles and told the rental company owners - Elavation - that the units were off-hired and presented them with no solution to extract them. They were too badly stuck in the mire to drive out, and closing the roundabout while a recovery vehicle extracted them requires a road closure permit which usually takes around eight weeks. In the meantime the council refused to pay. We received numerous letters regarding the report here are just a few.

Dear Leigh

I read with interest your story on the Elavation booms stuck on the roundabout at Hemel Hempstead. As you are aware this is something local to me and has been in the local press for some time.

The one thing I would add to your comments is 'did anybody do a site survey prior to the hire, be it the hire company or the Council, if they were the people doing the work'. If so I would say they chose/recommended the wrong machine. If no-one did a site survey and the Council just hired a couple of self propelled booms, then they get what they deserve.

Although we could be accused of a biased opinion - being agents for Multitel truck mounts - when I first drove past this roundabout (before I was even aware of the on-going saga) my reaction was why do people put self propelled machines on jobs that are much better done by a truck mount or even a spider type machine. The roundabout in question is two lanes wide so to use a truck mount on say a Sunday morning would appear to have been a realistic option without causing major traffic congestion.

At a more general level I am surprised by the number of self propelled machines that are used on bridge maintenance and other such tasks on the highway. I see ever more self propelled booms and scissors on the side of the road. Why are the customers not using truck mounts? Are the companies with truck mounts not selling them into route maintenance associated tasks, or are the self propelled booms and scissors just so much cheaper, even where they are not the best tool for the job?

Yours sincerely, Melvyn J. Else, Access Industries

Leigh,

Re: Death Wish 51, my comment is "Totally unsafe working practices".

For a start, all teaching, Operator Manual instructions, and BS8460 state that once the platform (sic basket, bucket, cradle) has left the ground, nobody gets in or out. A MEWP is not designed to cope with either the side loads or vertical change in platform load with the boom elevated and/or extended. BS 8460 Annex C gives guidance on how an acceptable Risk Assessment for leaving the platform might look, and it would be virtually impossible to meet the requirements.

So, golden rule number one is that if the manufacturer states in his Operating Manual "Don't leave the platform when elevated", don't do it.

You are totally correct in your estimate that if the roof walker fell, the fall arrest or whatever lanyard to which he was attached would overload the MEWP by a factor of at least 20. Based on the calculation that the average male falling two metres would generate a shock impact load of approx 1,500kg, the lanyard worn by the roof walker looked considerably longer than two metres, therefore the load generated would be considerably greater. The end of his lanyard is attached to a "restraint only" anchor point, built into the MEWP platform, where the maximum SWL of the platform is probably circa 220kg. We can conclude that a fall would generate forced vastly in excess of the MEWPs strength.

He should be using a suitable restraint system attached to a ground anchor, or running anchor line, fixed to the roof. Failing that, the use of a suitable Fall Arrest system. (Restraint always has priority over fall arrest).

So, No. If an accident had occurred, the HSE would have had a field day, and many options of which Regulations and Sections against which to prosecute.

Yours Sincerely

Name supplied but permission to publish under his name not received at time of going to press.

## Ladder abuse

We published a photograph of two men in Glasgow using ladders at dangerously low angles and protruding out into a busy street with no efforts to cordon off the ladder footings. The following letter was received from a reader in Australia.

Dear Sir,

It's amazing how some people just don't learn, or are too lazy to care, or just in too much of a hurry. I just wanted to highlight another problem you have not realised (although if you did a proper risk assessment you would end with a few more on top). What about safe pedestrian access past the ladders? Given the set up they would have to walk out onto the busy road to get around these clowns.

I'm forwarding this article to a friend in the sign erection game over here as a reminder as unfortunately it seems to be a very common problem in the industry, with everyone trying to do it cheaper than the others, more so now with the current economic decline. Hopefully if people like yourselves keep reporting these unsafe acts and the rest of us keep circulating them we might finally get through to at least some of them, and it could save a lot of suffering or even lives.

Keep up the great work and thanks once again.

Warwick,

Perth Western Australia.

## Safe or unsafe?

Our Death Wish series on Vertikal.Net number 51 highlighted men using self propelled boom lifts to gain access to the glass roof of a bridge over a road at Manchester's Trafford Centre. Two men had exited the platforms and using harnesses with long lanyards attached to the platforms were replacing light bulbs. We observed that the contractor had taken some in depth steps in a bid to make the job safe and asked was this really safe? A number of letters were received all of which said No. Here is one which sums up the overall tone of the responses. To see the report go to [www.vertikal.net/en/stories.php?id=7537](http://www.vertikal.net/en/stories.php?id=7537)

Dear Leigh,

We noted in a recent report on the failure of the telescopic boom on a crawler crane in Australia, that you made the following comment:

*"Most modern telescopic booms, including that of the Liebherr LTR1100 are not designed for excessive side loadings, to ensure this the crane needs to be set up as close to level as possible, especially when the load is a significant percentage of the cranes capacity. Also looking at the ground the spreading of point loads is required.*

*Such a telescopic crawler is not the ideal machine, unless it can sit on a prepared base which is both level and stable.*

**We would take issue with this comment:**

Cutting edge designs like the LTR1100 boom are made of extremely high tensile steel, (for example 1100 N2/mm).

When combined with the modern mono cylinder telescope systems these booms offer very good lifting duties.

However it is a fact that resistance of a boom against twisting, torsion and bending is hardly related to the tensile strength of the material being used (elastic modulus 'sigmaE' of steel). Because of the very high material strength and the wish for even better performance, from these booms thinner wall thicknesses are chosen.

As result such cutting edge boom designs offer exceptional lifting capacities, but can be easily damaged when they are used to handle off centre loads such as those introduced by an inclined machine or the excessive swinging of the load.

**A mobile crane has;**

- a) Flexibility in the outrigger system,
- b) The possibility to level the machine on uneven ground.

A crawler telescopic crane however is often used on slightly uneven or sloping ground in the same way as crawler mounted conventional lattice type cranes. We recently introduced a range of telescopic cranes under the Logicranes brand. With the above factors in mind we have adapted the boom design and construction and the choice of materials used to best cope with the real life circumstances of such cranes.

**I have to say that we therefore disagree with your conclusion that:**

'A telescopic crawler is not the ideal machine, unless it can sit on a prepared base which is both level and stable'

A telescopic crawler is an ideal machine, because it offers the telescopic crane benefits of speed, retractable boom and versatility, combined with the benefits of a crawler undercarriage - stable, low ground bearing pressures and excellent off road ability.

Of course you can't use the crane on a slope - no crane, forklift, reachtruck or even a barbeque can be safely used in excessive inclines. We believe though that crawler telescopic cranes are the future. That is why we are working very hard and quite successfully with our range of Logicrane machines, with capacities of 25, 55 and soon 90 tonnes capacity.

With kind regards,

**Hemmo Luijterink**

Our point was that the highly sophisticated modern lift crane booms are not designed for the typical rough and tumble of duty cycle crawler cranes. And that while crawler cranes fitted with such booms, such as the Liebherr LTR1100 have there applications, they cannot be subjected to substantial side loadings that rapid cycle work on uneven ground is likely to produce.

Ed

**Letters to the editor:**

Please send letters to the editor: Cranes&Access: PO Box 6998, Brackley NN13 5WY, UK. We reserve the right to edit letters for length. We also point out that letters are the personal views of our readers and not necessarily the views of the Vertikal Press Ltd or its staff.

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