

Marubeni

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TAKE THE LEAD

Atlantic Alliance 2008



Access and Egress
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For
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Marubeni Komatsu

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Access and Egress

The Marubeni Komatsu Approach

- Marubeni Komatsu have taken the view that we need to offer a flexible open minded view to customer and market requirements in light of the “UK” HSE Hard Target imposed in 2000.
- Having worked with QNJAC on its hard target initiative we have implemented a number of options to meet the market trend and customer requirements
 - **This presentation shows our approach to ACCESS and EGRESS**

Australia were ahead of the rest

- HSE identified the issue of Access and Egress
 - Too many accidents from tripping and falling on and off machines.
- HSE “Hard Target” launched 2000 (50% reduction in 5 years)
- HSE became aware of the Australian initiative 1999
- QNJAC started work 2000
- By 2005 the accident rate was halved

Larger machines in Australia



These steps have been
in use since the mid
1990's

Wheeled Loaders

Flexible Bottom Steps



Elimination of the flexible step was identified as being one of the key improvements

Inclined steps are part of the Komatsu design



The minimum step angle of 15° was identified as being a key issue as the recommendation was to move away from ladders to true steps.



The Marubeni Komatsu solution was to fit a fixed bottom step that operated hydraulically via the ignition key. This step has a fail safe should the engine stop where it lowers automatically. An audible warning is also fitted at the customers request.



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Automatic Steps

WA470 Steps

- These Steps are activated by the ignition switch
- Some users ask for them to be linked into the Parking Brake
- Discussion



Cleaning the Front Screen

RISK



The operator uses the front wing steps RISK



The Operator has the option to use a Safety Harness RISK



Additional front screen access steps are fitted. RISK



Additional Grab rail for a three point contact RISK



Lets take the risk out of this!!!!



Why put your operator into a “Risk Situation” use a safer method to clean the screen



Fit an adjustable screen cleaner to the machine for ground level access

Other Safety Related Items please see our machine

- Rear Chevrons (improved rear visibility)
- Blue Strobe Lights (improved rear visibility)
- Rear Camera and infrared Radar
- Step Lights
- Engine Room Light

Strobe lights Chevrons Radar Camera

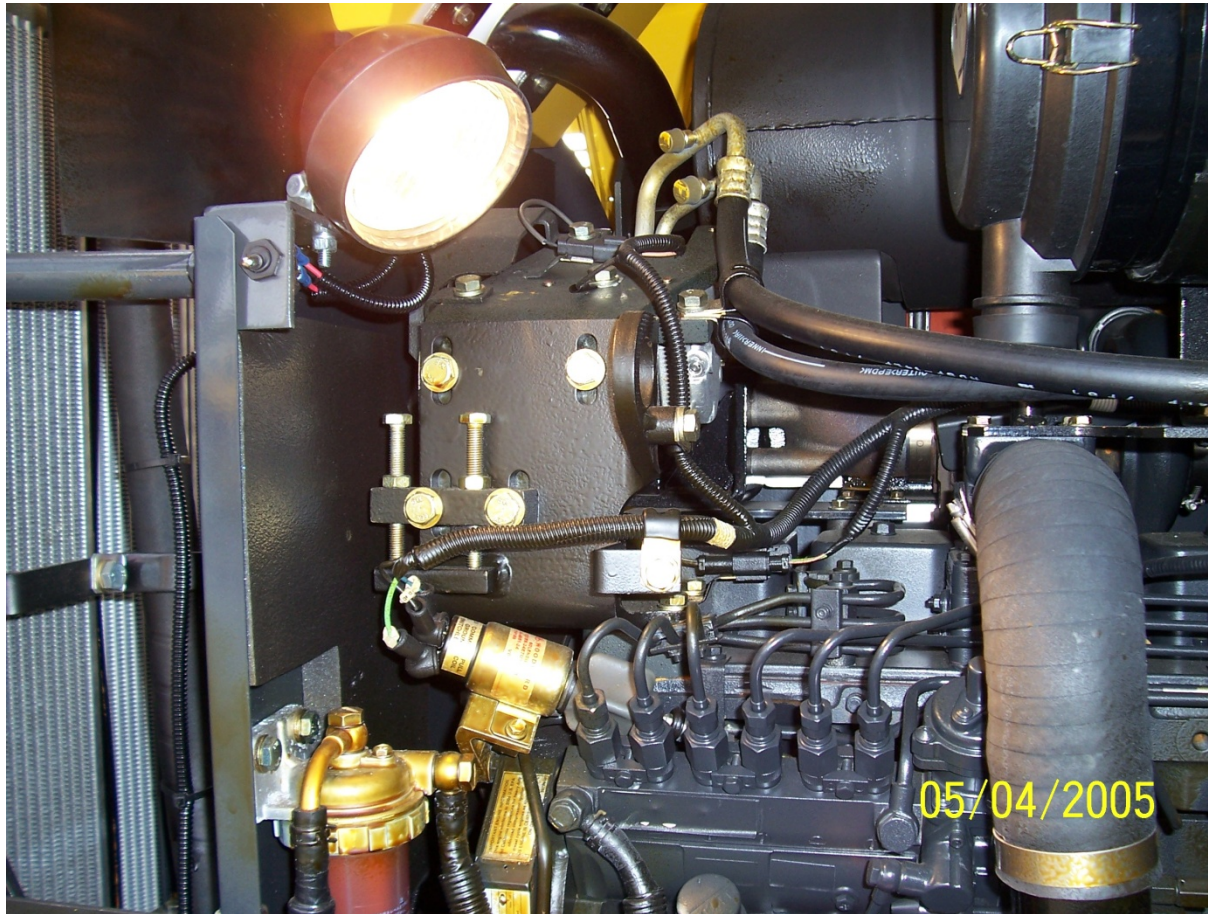


Lighting for Steps



**Particularly
in winter
the fitting
of step
lights
helped to
minimise
slips and
trips.**

Engine Maintenance Light



Fitting engine room lights was an obvious addition when handling oils.

Trucks

Truck Steps



Truck steps are a more expensive solution but the operators have received them well.

A second point of access has to be maintained.

Truck Steps



The bottom section of the steps fold up when the machine operates



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Australian Equipment Engineering



**AEE offer
a range of
steps for
all
machines**

Australian Equipment Engineering



Dozers



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Automatic Steps

Dozer Steps

- These steps are actuated by the Hydraulic Control Isolator



Excavators



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Excavator



Early design's featured large walkways.

Note the upper body guard rails

Excavator Handrails



The latest design's are rotating steps for smaller machines

SafeBoarder Steps Australia



Automatic Steps

SafeBoarder Steps

- These steps are linked into the Hydraulic Lever Isolation lock





To Close

**Can you spot the
“RISKS”**





Check the Ground Conditions



Check the Load



Check the Load



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Check Visibility



Watch where your going



Think Safe

Think Safe Gold mine in “South Africa”



Think Safe



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Think Safe



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Think Safe



Thank you



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