Atlantic Alliance 2008

Access and Egress
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For
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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.
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

05/04/2005
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
Let's take the risk out of this!!!!

Don’t put the operator in this situation
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.
Australian Equipment Engineering

AEE offer a range of steps for all machines
Australian Equipment Engineering
Dozers
Automatic Steps
Dozer Steps

- These steps are actuated by the Hydraulic Control Isolator
Excavators
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
Check Visibility
Watch where your going
Think Safe
Think Safe Gold mine in “South Africa”
Think Safe
Think Safe
Think Safe
Thank you