

# Mobile Equipment Symposium

## Falls from Equipment

Thursday, 03 March 2011

---

## **Some of the items I want to talk about today**

- Background on falls
- Standards for designing equipment access
- Good practice in equipment access
- Examples of U/G equipment
- Examples of surface equipment
- Maintaining access points

# Background on falls

---

- It is difficult to quantify the injuries related to accessing vehicles.

## **Workplace Safety North Stats (Reported Injuries)**

- In the total claims for falling from vehicles, shoulder and back injuries lead the way.
- In Ontario from 2000 to 2009 statistics show 28 claims from gold, nickel, other industrial minerals and quarrying.

# Standards for designing equipment access

---

Society of Automotive Engineering  
SAE J185 - 2003  
Access Systems for Off-Road Machines

International  
ISO 2867: 2006  
Earth-moving machinery -- Access systems

SAE & ISO are similar but not identical

Australian Standards  
AS3868-1991  
Earth-moving machinery—Design guide for access systems

# Good practice for access

---

**Should be considered at design stage and not as an after thought**

- Stairs are always preferable over vertical steps
- Continuous hand rails over individual grab handles
- Anti-slip paint over tape
- Identifying access points (2 reasons)
- Designed not to collect dirt
- Ground level servicing
- Access lighting

Stairs are always preferable over vertical steps



Stairs are always preferable over vertical steps



# Continuous handles over individual grab handles



## Anti-slip paint over tape



## Identifying access points (2 reasons)

Paint the access points green in colour so the operators and maintenance personnel know where they should grab when mounting equipment.

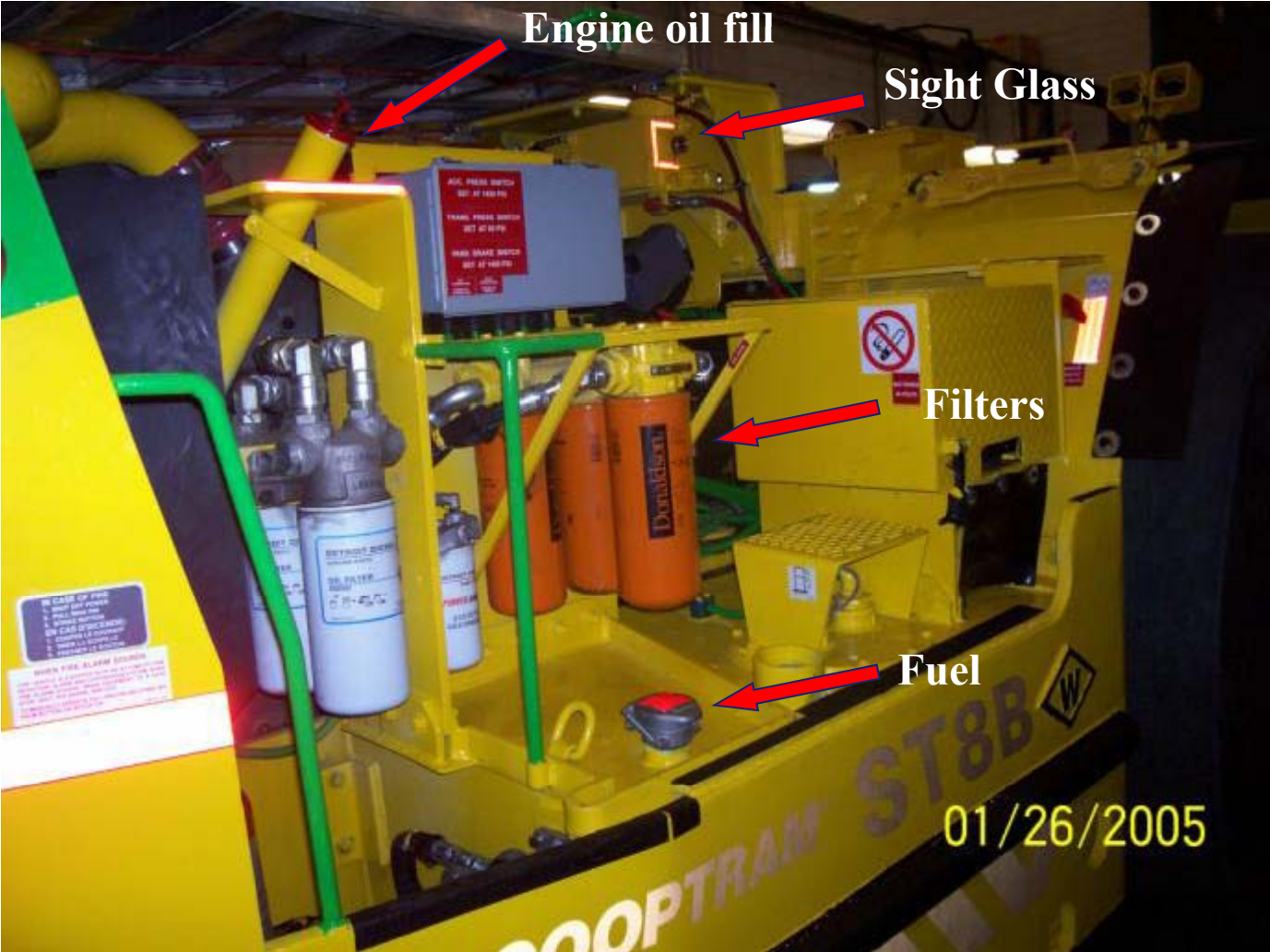
By painting them at factory it helps us identify ahead of time where there are handles or steps missing or in improper locations.



# Designed not to collect dirt



# Ground level servicing



# Ground level servicing



# Access Lighting



# Examples From U/G Equipment

## Boom Truck Deck Access



## Personnel Carrier Access



# Examples From U/G Equipment



# Examples From U/G Equipment



**Step on angle & high off ground**

# Examples of surface equipment



# Examples of surface equipment

**Walkway for  
cleaning window**



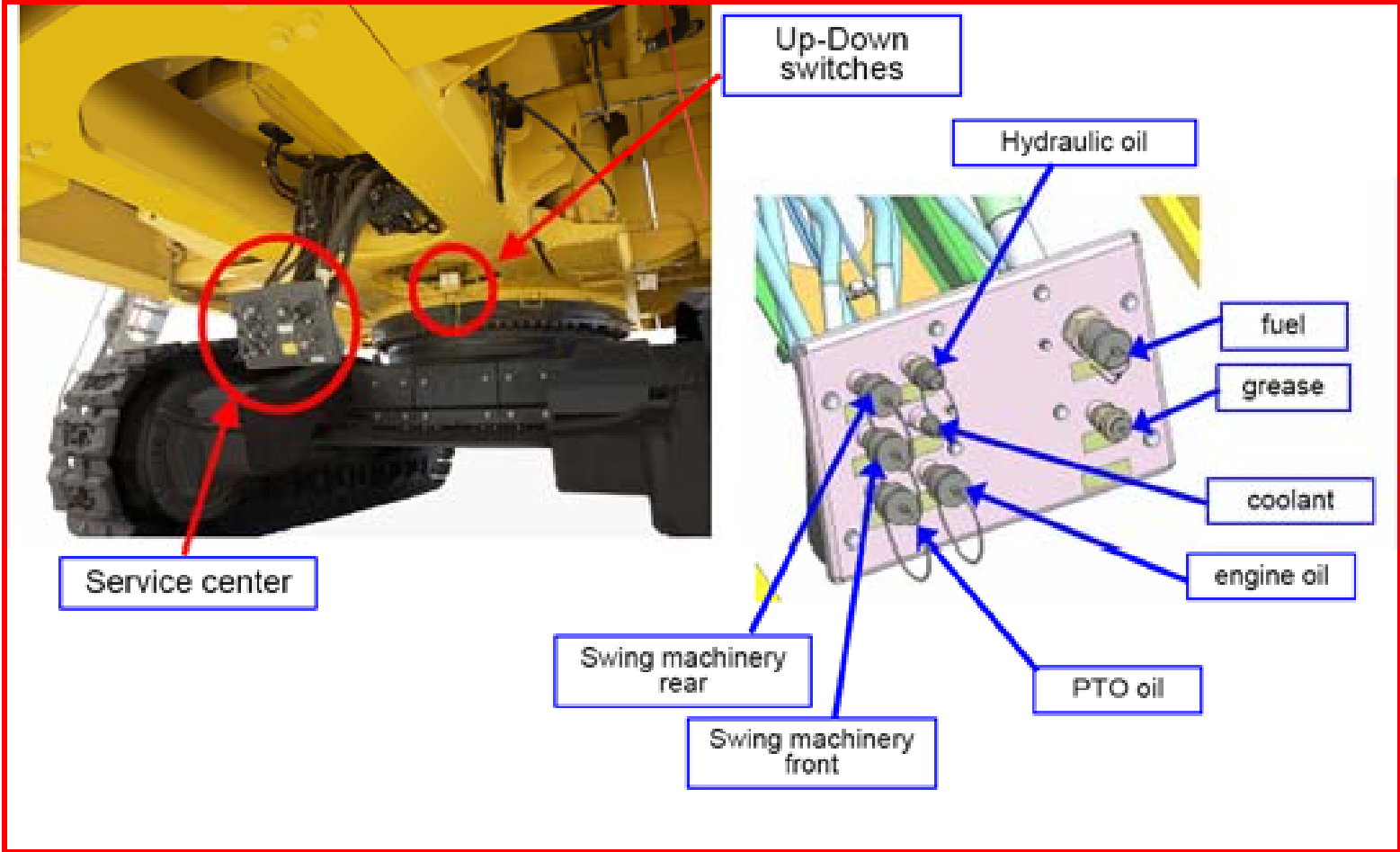
**Stairs**



# Examples of surface equipment



# Ground level servicing



# Maintaining access points

---

- Access points often get full of dirt, worn, bent or broken off.
- The Five Point Safety System says “Check condition of entrance and travelway to your place of work”
- We are having to many incidences where employees are slipping and investigation reveals that access points are not properly maintained

# Maintaining access points



# Reduce the need to climb on equipment

Remote mucking is one area where we have operators mounting & dismounting equipment numerous times during a shift.

In some applications Autonomous Mining may be a way to reduce the need of operators requiring to mounting & dismounting equipment



---

Thank you

Questions?