

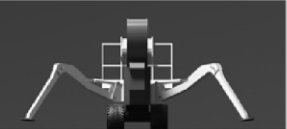
What a MEWP Supervisor / Manager Should Know!

屈永昇

Raymond Wat

IPAF Asia Representative

13th August 2020



1 - Standards



Design standards



www.ipaf.org

ANSI/SIA A92.5 - 2006

ICS 53.020.99
J 80



中华人民共和国国家标准

GB 25849—2010

AMERICAN NATIONAL STANDARD

BRITISH STANDARD

BS EN
280:2001
+A2:2009

Mobile elevating work
platforms — Design
calculations — Stability
criteria —
Construction —
Safety — Examinations
and tests

Committee member copy: Do not reproduce

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INTERNATIONAL
STANDARD

ISO
16368

Second edition
2010-09-15

Mobile elevating work platforms —
Design, calculations, safety requirements
and test methods

Plates-formes élévatrices mobiles de personnel — Conception, calculs,
exigences de sécurité et méthodes d'essai

Licensed to IPAF
ISO Store under
Single user license



Issued: 2015-02-23
Retrieving prohibited

Reference number
ISO 16368:2010(E)

© ISO 2010

AS/NZS 1418.10:2011

Australian/New Zealand Standard™

Cranes, hoists and winches

Part 10: Mobile elevating work
platforms



台
测试方法
—
test methods

2011-12-01 实施

总局
发布

Differences in current design



www.ipaf.org

- **Categorisation:**

ANSI – Self propelled (scissor), Boom supported, Vehicle mounted, Manually propelled, Bridge inspection

CE –Static (1), Mobile (3), Vertical (A), Boom (B)

- **Stability:**

ANSI – Physical testing

CE – Calculations

- **Physical features**

ANSI – Chain for gate, no kicker plate in entrance

CE - Load cell, electric guarding

ANSI and CE



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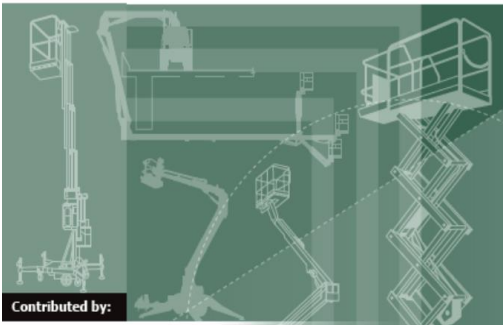


Safe Use Standards



www.ipaf.org

Statement of Best Practices for Workplace Risk Assessment and Aerial Work Platform Equipment Selection



Contributed by:



SS 616 : 2016
(ICS 53.020.99)

SINGAPORE STANDARD

Code of practice for safe use of mobile
elevating work platforms

BRITISH STANDARD

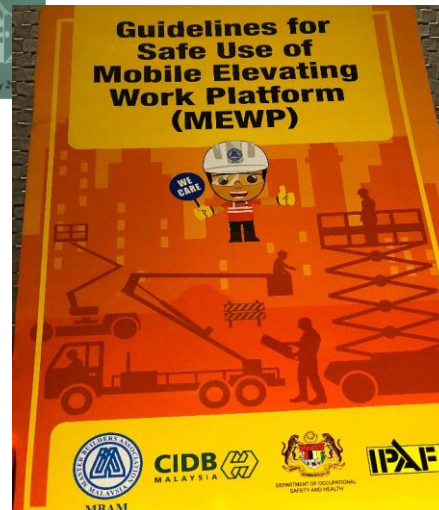
Safe use of MEWPs —

Code of practice

INTERNATIONAL

STANDARD ISO 18893:2014

Mobile elevating work platforms — Safety
principles, inspection, maintenance and
operation



ICS 53.020.99
J 80



中华人民共和国国家标准

GB/T 27548—2011/ISO 18893:2004

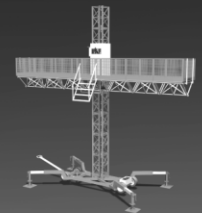
© ISO

移动式升降工作平台 安全规则、
检查、维护和操作

Mobile elevating work platforms—Safety principles, inspection,
maintenance and operation

(ISO 18893:2004, IDT)

2 - Machine types and use



Two basic designs



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Vertical (a)

Inside tipping lines

Centre of gravity



Boom (b)

Outside tipping lines

Which Category is Which?



www.ipaf.org

The poster displays the IPAF logo at the top left. It features a central image of a worker on a scissor lift. Surrounding this are several boxes representing different equipment categories:

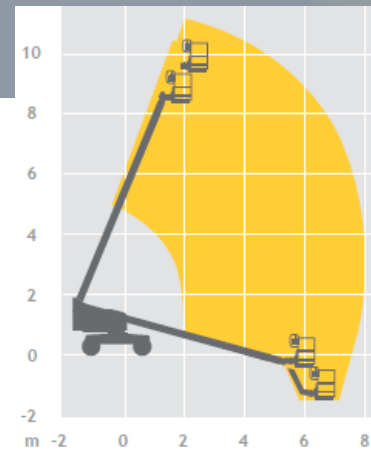
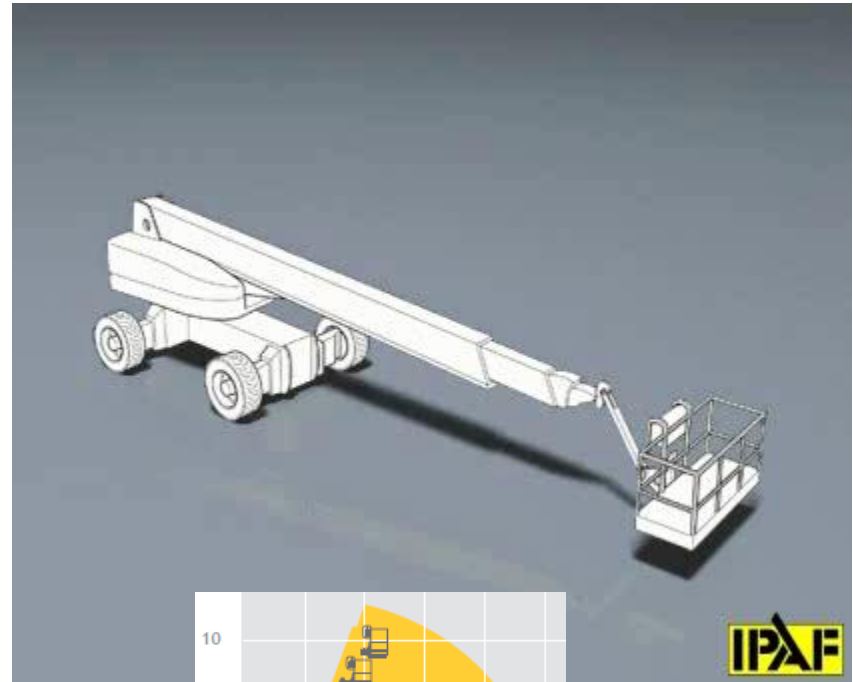
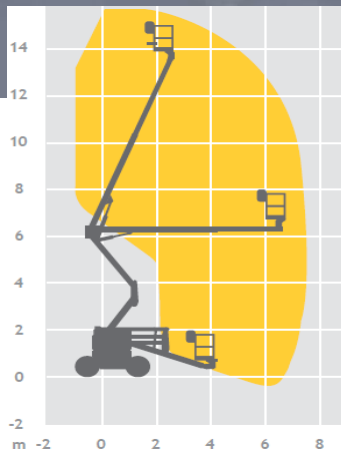
- 1a**: Scissor lifts (with a 1a+ sub-category).
- 1b**: Boom lifts (with a 1b+ sub-category).
- 3a**: Forklifts and scissor lifts (with a 3a+ sub-category).
- 3b**: Boom lifts (with a 3b+ sub-category).
- MCWP**: Manually Controlled Work Platform.
- PAV**: Powered Access Vehicle.
- IAD**: Inflation Assisted Device.
- MM**: Manually Operated Machine.

At the bottom, it includes the text: "International Powered Access Federation", "info@ipaf.org", and "www.ipaf.org". There are also icons for a hand, a checkmark, and a warning symbol.

Boom types and applications



www.ipaf.org



Working envelope



www.ipaf.org

Working Height = Platform Height + 2m/6ft

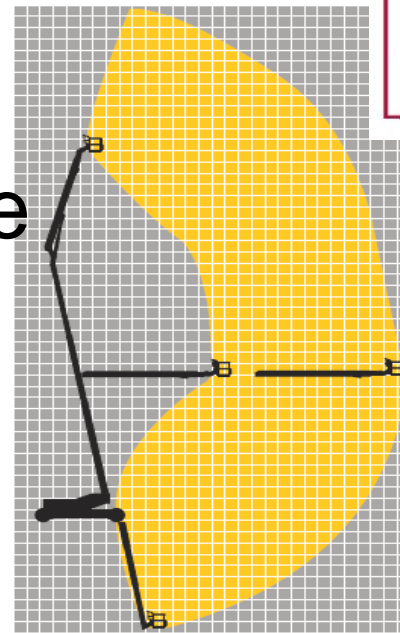


Axle configuration

Variable working envelope

Computerised

Dynamic movement

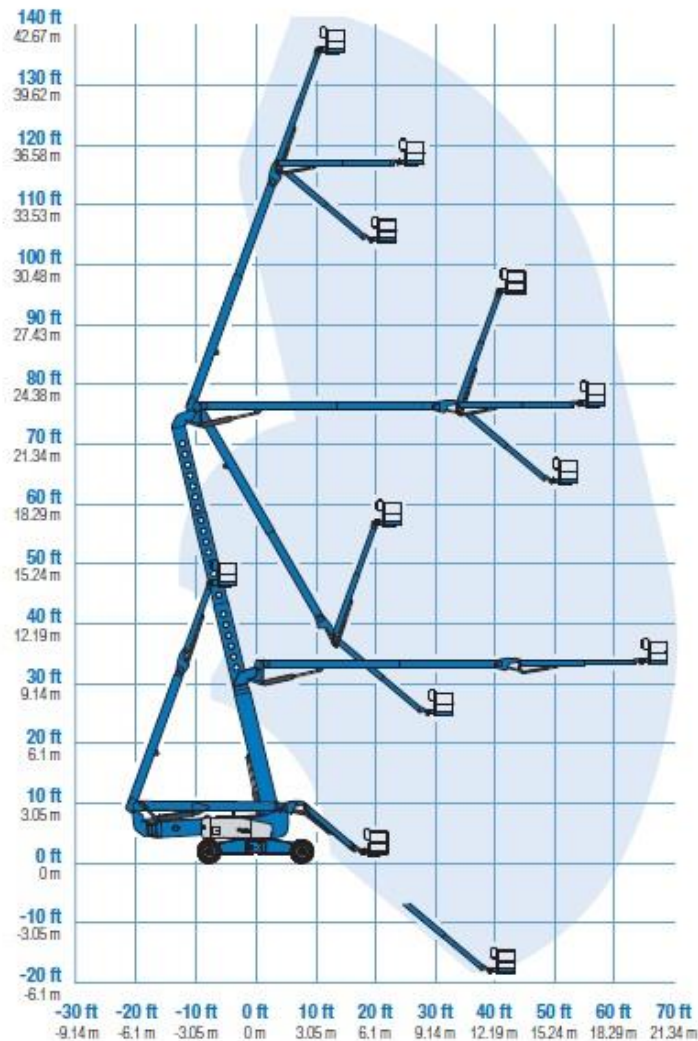


“When the structure needs to be extended or retracted in a specific sequence to avoid overloading and/or overturning, this sequence shall be automatic”

Example of a boom lift envelope



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www.ipaf.org

3 – Structural parts and selection



Structural Parts



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- Platform
- Jib boom
- Telescoping/extending boom
- Upper/primary boom
- Lower/secondary boom(s)
- Turntable- rotation degrees
- Chassis - Drive
 - Wheels/tracks



2 and 4 wheel drive



www.ipaf.org



Pneumatic and foam filled tyres



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Solid tyres – Non-marking



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Outriggers



www.ipaf.org

“H” frame

“A” frame



Stability and Levelling



www.ipaf.org



SPREAD THE LOAD SPREADER PLATE READY RECKONER

Check maximum permissible jank leg forces this can be found in the specific machine operator manual.

Gross vehicle weight.	kN	Jm	tonnes (t)	lbs (l)	kg (k)	tms
7.5 Tonnes	61	6100	6.22	13713	6220	610000000

If maximum jank leg forces as shown in manual is higher than above, select a larger machine size with a maximum jank leg equivalent or greater to that in the manual. Load bearing forces is calculated at 80% of gross vehicle weight but some vehicles may be greater. Please check the specific machine operator manual.

Identify your ground conditions and then follow the colour coded boxes to identify the minimum recommended spreader plate size required for the selected vehicle.

For a general description of ground conditions please [CLICK HERE](#).

High Grade More than 400kN/m ²	Medium Grade 250-400kN/m ²	Low Grade 100-250kN/m ²	Too Soft Less than 100kN/m ²
0.15 m ²	0.24 m ²	0.61 m ²	Warning: seek advice

BELOW ARE THE MINIMUM RECOMMENDED SPREADER PLATE SIZE IN MILLIMETRES (mm)

Spreader plates should be of suitable strength and appropriate material to prevent disturbance and spread the load even

			Warning: seek advice
450 dia	600 dia	900 dia	Warning: seek advice
			Warning: seek advice
450 x 450	600 x 600	900 x 900	Warning: seek advice

For a list of checks that should be carried out after setting up but before operating, [CLICK HERE](#).

Example: 18 tonne machine, maximum jank leg load no greater than 146kN on medium grade ground. From the example above it shows you need a 0.59m² spreader plate. The minimum recommended spreader plate size is 900 mm diameter or 900 x 900 mm square.

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Spread the load!

Spreader plates should always be used with boom-type MEWPs when fully supported on their outriggers.

Note: Spreader plates should be used with all other MEWPs that have outriggers unless a risk assessment indicates they are not necessary.



Spread the load



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International Powered Access Federation
 info@ipaf.org
 www.ipaf.org

IPAF org

About IPAF Training IPAF Rental Publications Services Membership Directory

Resources

INTERNATIONAL POWERED ACCESS FEDERATION

RESOURCES

- Health & Safety
- Technical Guidance Notes
- Clunk Click Campaign
- Spreader Plates Campaign**
- Emergency Descent Symbol
- Reference Guides
- Product Alerts
- Presentations
- Rogue's Gallery
- MCWP
- FAQ
- Links
- News
- From the Media
- Events
- AWP Operator Training Support Kit

News from IPAF - Click here

European powered access market: IPAF rental reports

IPAF powered access rental reports predict strong upturn in US market in 2012

IPAF US Convention: Are you adequately managing your risk to avoid accidents and lawsuits?

New member service: Discounted deliveries with

Spread the load!

www.ipaf.org

Spread the load!
 Spreader plates should always be used with boom-type MEWPs when fully supported on their outriggers.

Here, spreader plates should be used with all other MEWPs that have outriggers unless a risk assessment indicates they are not necessary.

'Spread the Load' Video

What is 'spread the load'?

IPAF has launched a safety campaign calling for the proper assessment of ground conditions and the correct use of stabilisers, outriggers and spreader plates.

IPAF's 'Spread the load!' campaign is built around this simple and straightforward message:

Spreader plates should always be used with boom-type mobile elevating work platforms (MEWPs) when fully supported on their outriggers.

Spreader plates should be used with all other MEWPs that have outriggers unless a risk assessment indicates they are not necessary.

The campaign is an initiative from the IPAF UK Hire Committee's Spreader Plates Sub-Group. Several campaign tools, available in different languages, have been developed to spread the message, including leaflets, posters, stickers and a video.

Why is this campaign needed?

MEWPs are generally very safe and stable. However, incorrect setup can cause instability and lead to overturning. This is often the result of inadequate ground assessment, poor selection of spreader plates, or incorrect positioning of outriggers. The 'Spread the load!' campaign sets out to give clear and practical guidance on when and how to use spreader plates.

How can I support 'spread the load'?

Members Only Login
 Username:
 Password:
 LOGIN

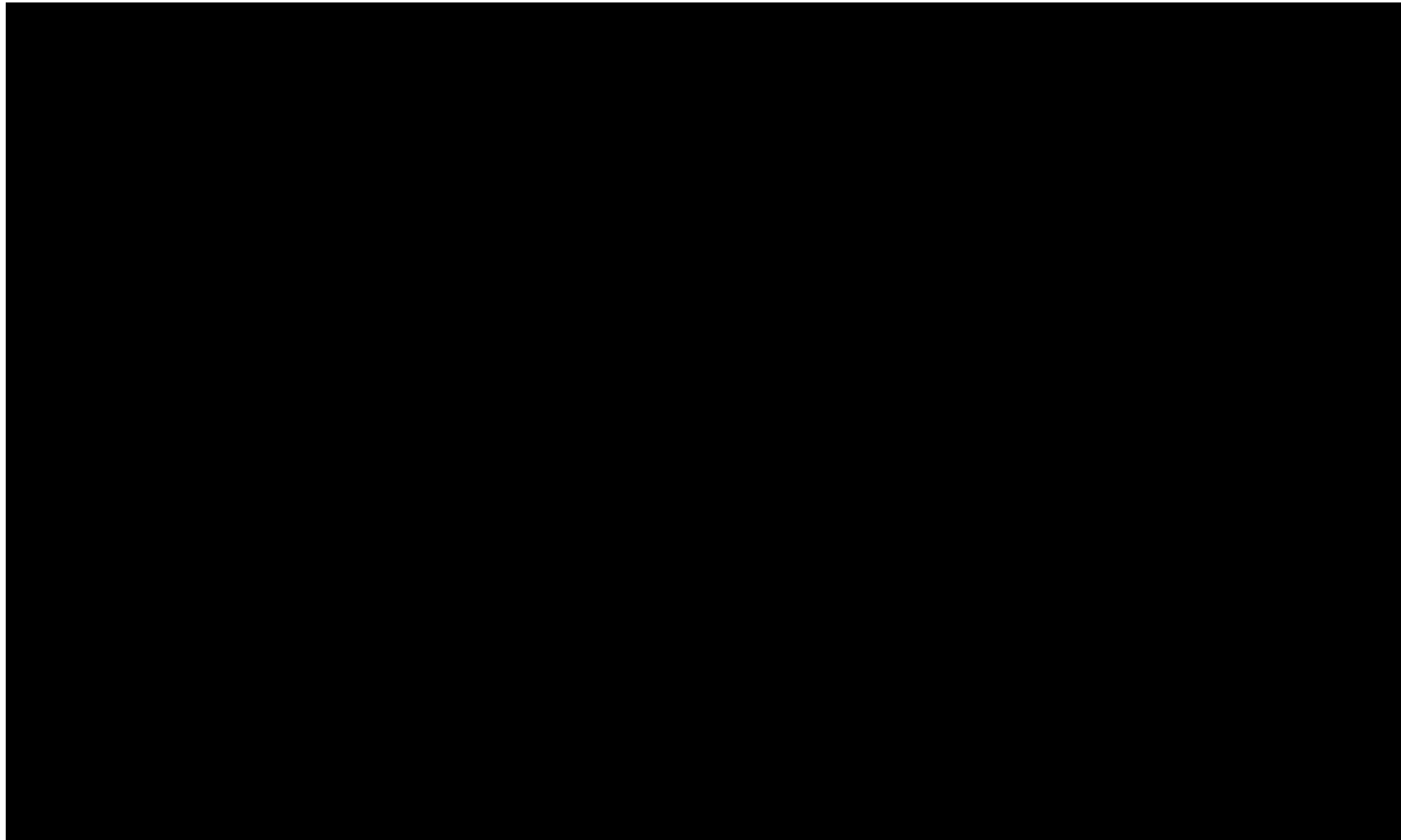
search www.ipaf.org

- Join Today
- Events
- News
- Training Centre Locator
- PAL Card
- AWPT
- Online Survey
- Spread the load!
- Clunk Click!
- STATISTICS

Spreader plates



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Extending axle



www.ipaf.org



Pot Hole Protection



www.ipaf.org



How Pot Hole Protection Works?



www.ipaf.org



What Is It For?



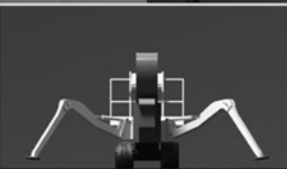
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4 – Control Layout and Decals



Function Enable Systems



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Primary
guarding
systems



Interfering With Hold To Run Devices



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Directional Arrows



www.ipaf.org



Scissor Chassis Controls



www.ipaf.org



Platform Controls - Scissor



www.ipaf.org



Boom Chassis Controls



www.ipaf.org



Boom Platform Controls



www.ipaf.org



Emergency Descent On Scissor Lift



www.ipaf.org



Different Brand Different Place



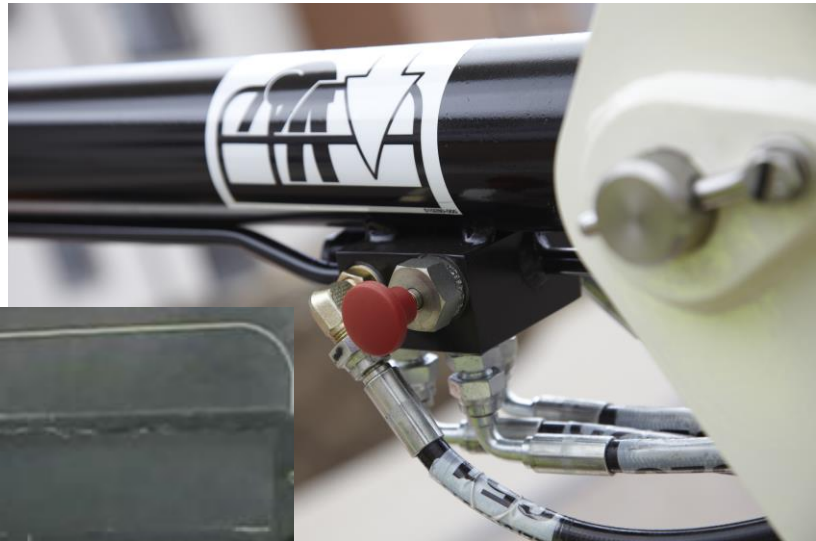
www.ipaf.org



Emergency Descent - Boom



www.ipaf.org



Emergency Lowering



www.ipaf.org



EMERGENCY HANDPUMP

In the event that the controls fail or the operator becomes incapacitated the booms can be operated by using the handpump which is located under this cover.

This Is Why Familiarisation Is Important!



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It is the employer's responsibility to ensure that all operators using equipment are adequately trained and familiarised.

Required when using a machine which differs significantly from the training you have received (e.g. weight, height, width, length or complexity).

Machine-specific familiarisation should follow on from basic training and cover:

- Manufacturer's instructions and warnings
- Features of the specific model
- Control functions
- Safety devices
- Emergency lowering procedures


All of the above are to be found in the information supplied with the machine.




Technical Guidance Note
F1/08/07 on:

Familiarisation

Those who intend to use any machine with characteristics of weight, height, width, length or complexity which differ significantly to the training they have received should ensure that they receive a familiarisation to cover the differences.



It is the employer's responsibility to ensure that all operators using equipment are adequately trained and familiarised to comply with current health and safety legislation.



Machine specific familiarisation should follow on from basic training and cover:


- Manufacturer's instructions and warnings
- Features of the specific model
- Control functions
- Safety devices and
- Emergency lowering procedures

All of the above are to be found in the information supplied with the machine.


This guidance note was prepared by the IPAF Training Committee. It has been approved by the Powered Access Interest Group, a joint committee of the Construction Plant-hire Association and the International Powered Access Federation.

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info@ipaf.org www.ipaf.org

Offices in France, Germany, Italy, Netherlands
Spain, Switzerland and USA



www.cpa.uk.net



The world authority
in powered access

www.ipaf.org

Designed and produced by B&M Marketing Ltd, BMS, 1011 St. Lukes, USA 09/10/002

Information & Warnings



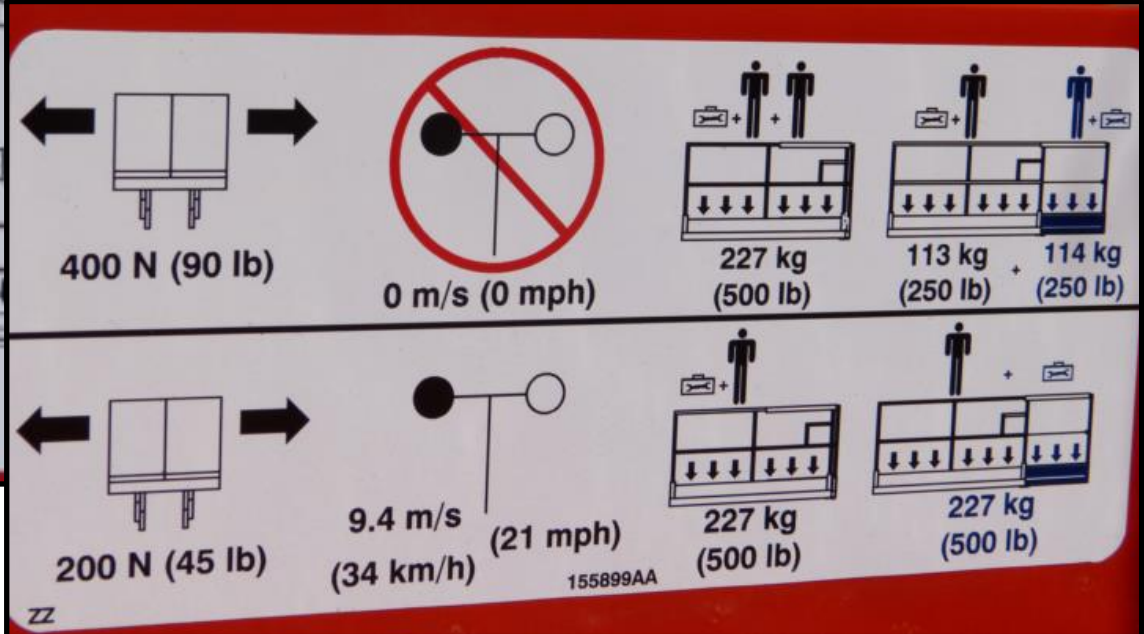
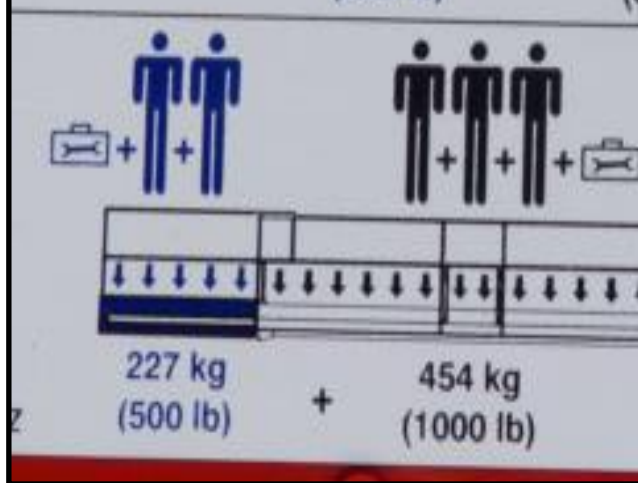
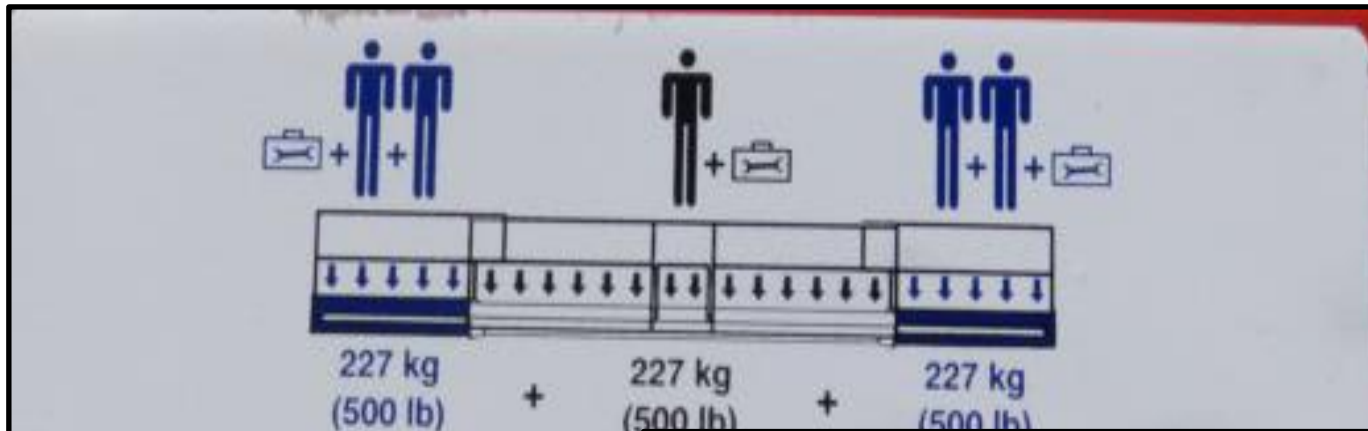
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Decals - Scissors



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Decals - Scissors



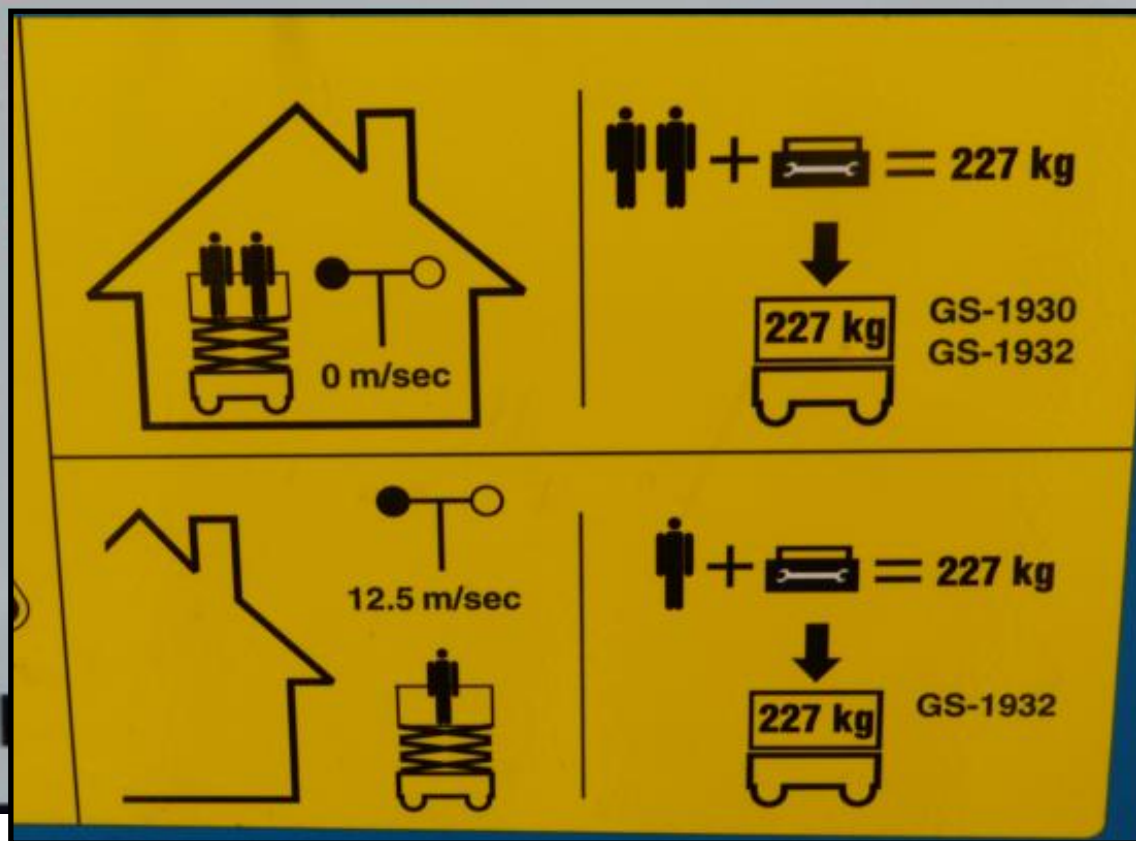
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150 Kg =
(70 Kg + 1 )



12,5 m/s
(45 Km/h)



Decals - Booms



www.ipaf.org

WARNING
AVERTISSEMENT

WARNHINWEIS
ADVERTENCIA

AVVERTENZA
WAARSCHUWING

225KG
(500lbs)
MAX

80KG (177lbs) + 80KG (177lbs) + 65KG (144lbs)

12.5 m/s (28mph) MAX

400N (90lbs) MAX

P17326/001

227 kg (500 lb)

>30% (17°) = 136 kg (300 lb)

400 N (90 lb)

12.5 m/s (45 km/h) (28 mph)

230 Kg = (bag + 2 workers)

16,6 m / s (60 km/h)

400 N (40 kg)

14 m

5°

P 20240



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5 – Manufacturers' Maintenance & Inspection Documents



Maintenance / Repair Documents



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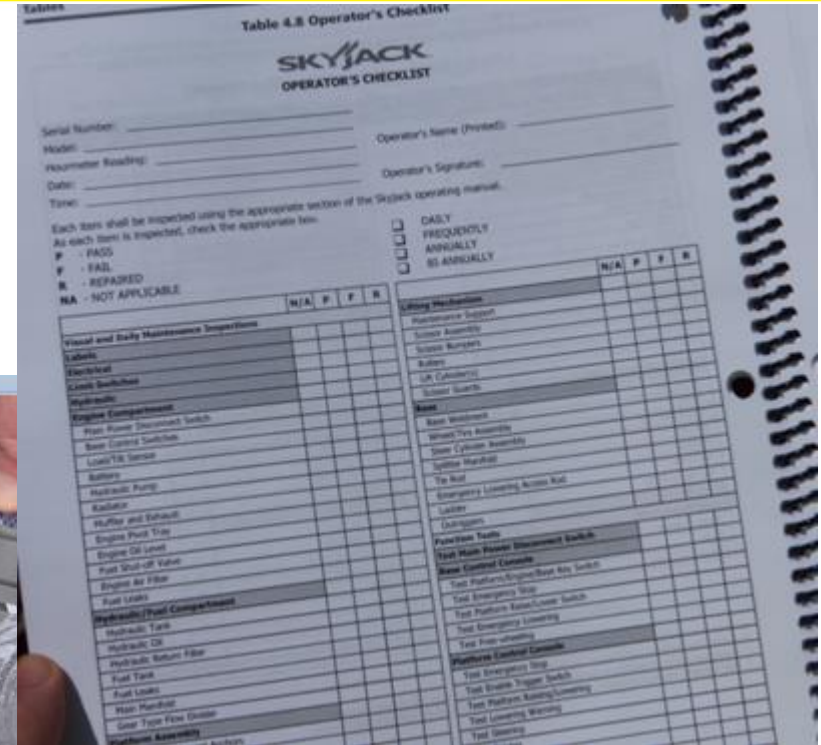
- **MAINTENANCE & SERVICE:** Inspection, lubrication, adjustment and scheduled part(s) replacement.
- **REPAIR:** Restoring to good condition that which is broken, damaged, or worn due to use, abuse or other reasons.
- **MACHINE RECORDS:** Kept by the machine owner or their appointed person/party.

Only allow competent and authorised persons to perform maintenance or repairs!

Manufacturer's Operational & Service Manual



www.ipaf.org



Manufacturers Bulletins & Service Notices



www.ipaf.org



P.O. Box 1160
St. Joseph, MO 64502-1160
Phone: 300-374-4444
Fax: 785-989-3333

Product Safety Bulletin

Service & Support

- Customer Service
- After Sales Support



Service Bulletin #113 SJ46AJ / SJ51AJ Master Leveling Cylinder Mount Retrofit and Riser Link Bushing Replacement

SAFETY NOTICE

110003

Part Numbers Affected: P/N 96769 replacement for the above models purchased from April 13, 2011 to July 13, 2011
Subject: Motor Controller
Allowable Hours: 30 minutes

You are receiving this bulletin because you are the owner of an affected machine or you have purchased the motor controller P/N 96769 as a service part from April 13, 2011 to July 13, 2011.

Issue:

Genie Industries has recently received reports of machine fires relating to a newly designed Kinetek motor controller. Genie has been installing this component on the above affected models since May 2, 2011 and sold as a replacement part from April 13, 2011 to July 13, 2011. **A motor controller failure can result in a machine fire.**

Action Required:

This safety notice requires the immediate removal of the affected machines from service. A follow up bulletin to resolve this issue will be sent out as soon as available.

1. Locate all machines within the serial number ranges shown above and all of the machines where the part replacement was installed. Also locate any affected motor controllers received but not installed.
 Note: Enclosed is a list of affected machines under your account.
 Note: Enclosed is the invoice number for P/N 96769 if purchased as replacement parts.

2. Immediately remove these machines / parts from service. For part(s) that are not installed on machine, file a warranty claim to receive a RA number. Then return the part(s) to Genie immediately via ground to the address below:

Genie Industries
Attn: Robbert van den Berg
Klompdenhoefke 1
4751 XP Oud gastel

Industrial zone Borgwerf 2
Netherlands

Snorkel Manuals & Bulletins

Snorkel Operators' Manuals	Snorkel Parts Manuals	Snorkel Troubleshooting Guides
Economy Parts Manuals	Snorkel Miscellaneous Manuals	International Operators' Manuals
Economy Operating Manuals	Maintenance Manuals	Service Bulletins

Filter Bulletins:

Manual Number	Product Name	Description	Revision Date	Download
ESB111985	1000 Series	Cub, 1000, 1200, 2000 and 4000 Wildacts "UP" switch replacement	11/1985	Download
SB008	1000 Series	"G" series, Wildcat, Barecat, Cat a Lever, 5000 Seabee Lift Cylinders	01/1990	Download
SL129	1000 Series	Safety Related. Required Modification. Loose Pistons in Star and Seabee Lift	03/1995	Download
ESB62679	1200 Series	1200 Series Drive Hubs	01/1979	Download
ESB92179	1200 Series	Switch Block Retaining Screw inspection	09/1979	Download
ESB111979	1200 Series	1200 Series Steering	11/1979	Download
ESB6181	1200 Series	1200 Series Hub Replacement Kit	01/1981	Download
ESB070181	1200 Series	SPL-26-80 HUB Replacement	07/1981	Download

Genie SAFETY NOTICES



Genie Safety Notice

Enter your serial and press search.



Repair Knowledge - Identical or Equivalent



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- **These batteries should be identical or equivalent**
- **Weight – impact on counterbalance**

Example of Failure of On-site Inspections



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Folding Hand Rails



www.ipaf.org



Hand Rail Pin Security



www.ipaf.org



Correct handrail pins



Replace worn or damaged pins



Located correctly



Handrail pins tethered





ST-547-0318-1-en-US

www.ipaf.org

This machine is equipped with sensors for overloading and tilt

Certain functions will stop when limits are exceeded.
Read the operator's manual.



Outrigger & Stabiliser Sensors



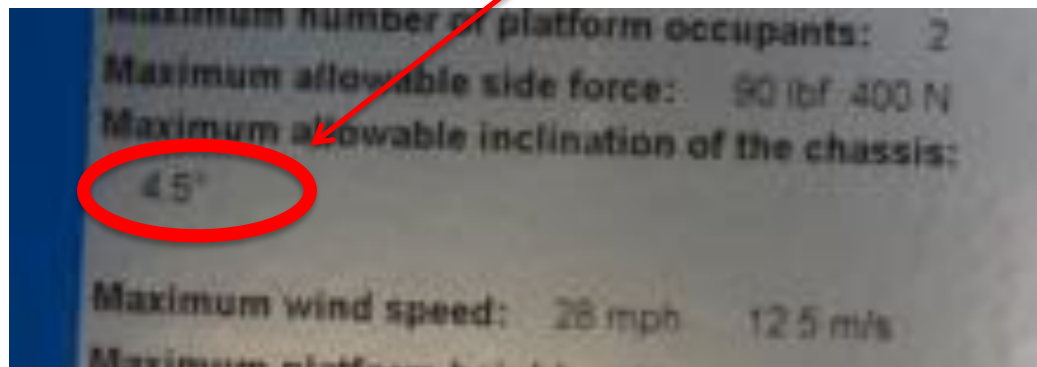
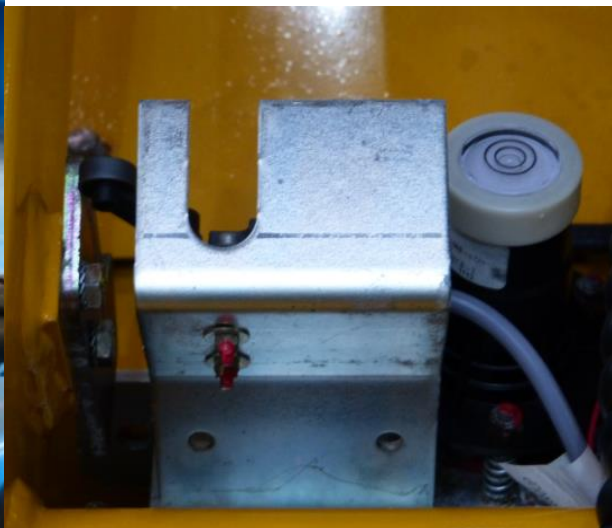
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Tilt Sensors



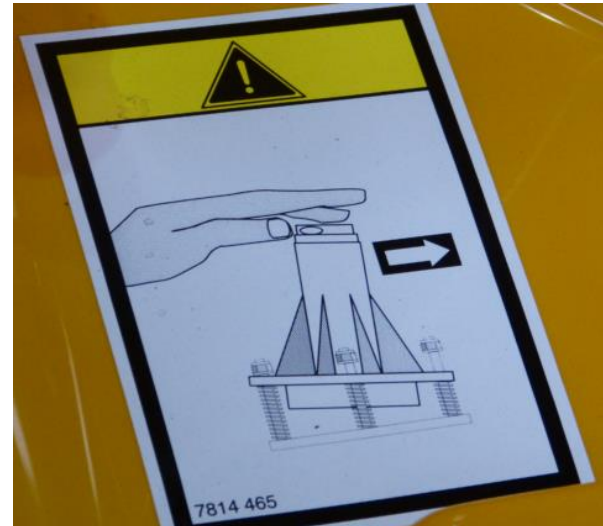
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Tilt Sensors



www.ipaf.org



MEWP Gradeability



www.ipaf.org

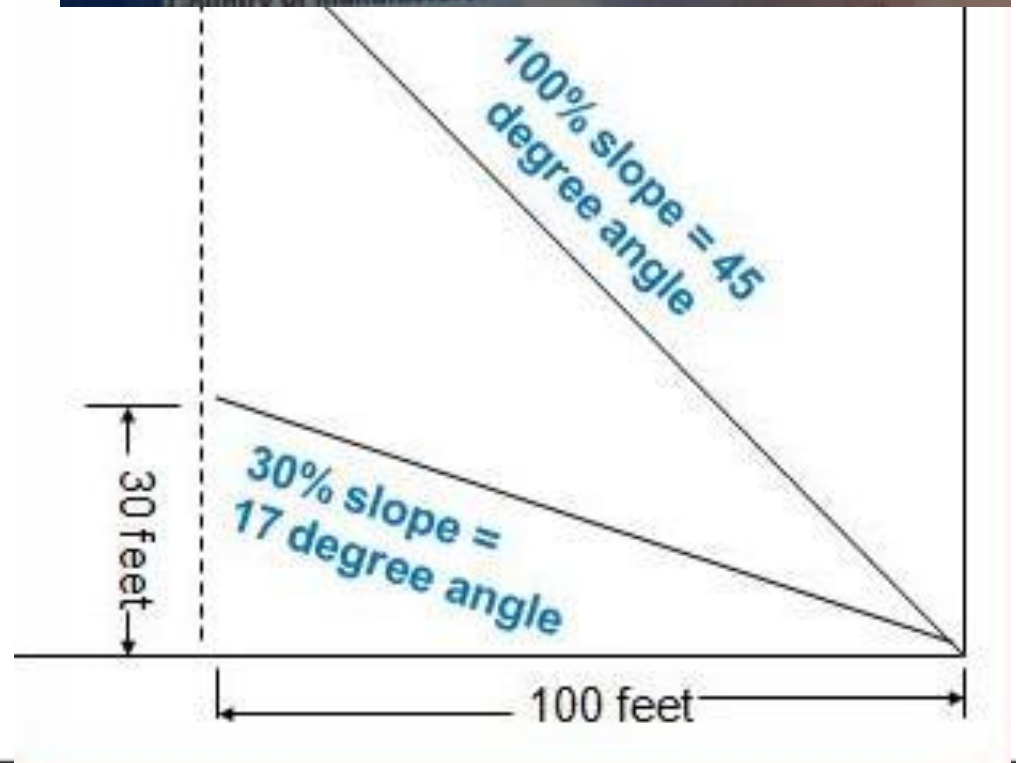
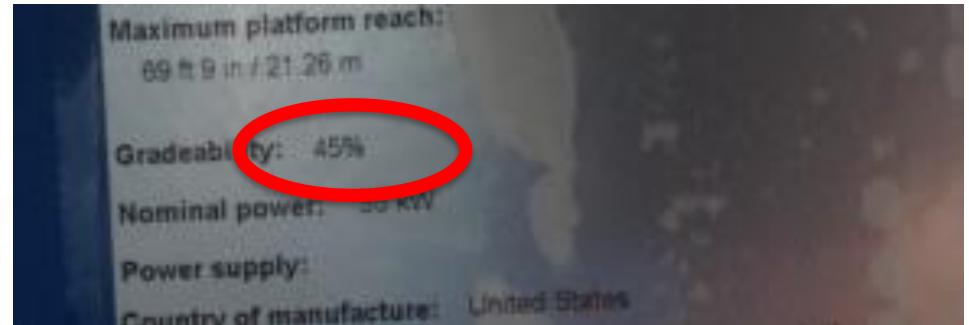
Don't confuse:

% slope

with

degrees

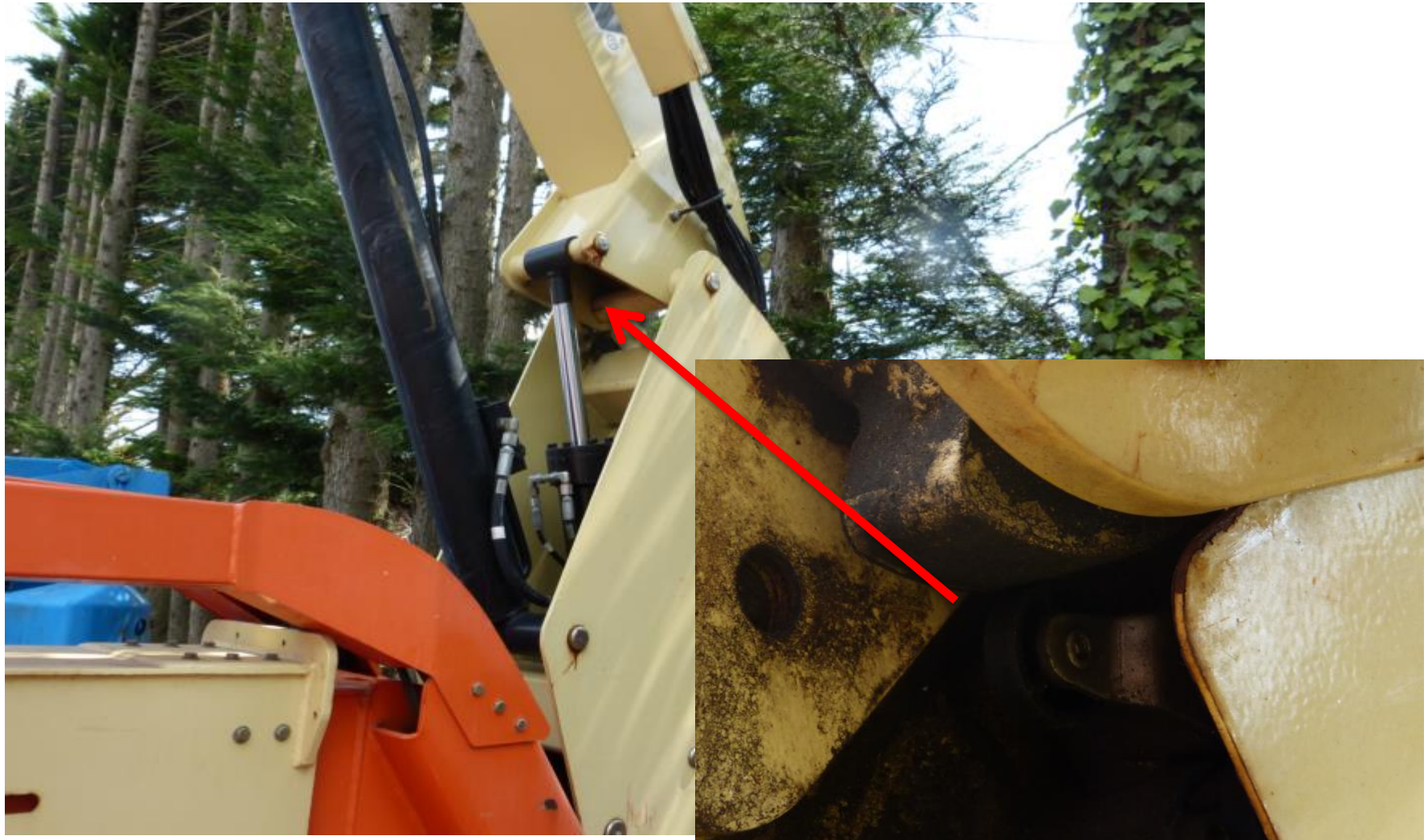
$$\text{grade \%} = (\text{height} \div \text{length}) * 100$$



Elevated Drive Speed Reduction



www.ipaf.org



Elevated Drive Cut Out



www.ipaf.org



Alarms



www.ipaf.org

Travel alarm

Descent alarm

Electric guarding (CE)



Correct Components



www.ipaf.org



Tyre Condition



www.ipaf.org



Pre-use Inspection Check List



www.ipaf.org



MEWP PRE-USE INSPECTION CHECKLIST

MACHINE: _____

WEEK COMMENCING: _____

All checks should be conducted in accordance with the manufacturer's manual

		MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY		
VISUAL CHECKS	Documentation	1	Current thorough examination certificate (within last six months)							
		2	Manufacturer's operator manual							
		3	Rescue plan							
	Wheels/tyres	4	Wheel security (nuts, retainers: loose, damaged, missing)							
		5	Tyre pressure (pneumatic, foam filled or solid)							
		6	Cuts, splits, exposed braiding, damaged rims							
	Engine/power source	7	Fluid levels (engine oil, coolant, fuel)							
		8	Fluid leakage on ground and around engine							
		9	Battery (electrolyte, security and charging plug condition)							
	Hydraulics	10	Hydraulic fluid level							
		11	Leaks (hoses, pipe connections, rams, cylinders)							
	Hoses and cables	12	Security and condition (cuts, chaffing, bulges)							
		13	Power track cable trays (free from damage and debris)							
	Outriggers, stabilisers	14	General condition, pins/retainers, footplate							
		15	Spreader plates (present, condition, secure for travel)							
		16	Interlocks (functioning, engaged)							
	Chassis, boom and scissor pack	17	General condition (damage, misalignment, corrosion)							
		18	Cracks in weld							
		19	Pins, retainers and chains (security, signs of wear)							
		20	Canopies, guards, engine covers (security and condition)							
		21	Steps for access/egress (secure, undamaged, clear)							
	Platform or cage	22	Entrance gate, guard rails and retaining pins							
		23	Harness anchor points							
		24	Clear of rubbish, debris and obstructions							
	Decals and signage	25	ID plate, safety, warning and information decals (legible)							
		26	Controls (identification decals, directional arrows)							
		27	Platform loads (SWL, max. wind speed, max. number of persons)							
		G	P	G	P	G	P	G		
FUNCTION CHECKS	Using Ground (G) and Platform(P) controls	28	Security device (power isolator, keypad, smart card)							
		29	Function enable (ignition key, foot switch, hold to run device)							
		30	Emergency stops and emergency lowering system							
		31	All switches, function controls (move freely, do not stick)							
		32	Lifting functions (raise, lower, slew, tele-out, tele-in)							
		33	Travel functions (forward, reverse, steer, brakes)							
		34	Elevated drive speed (reduced or prevented)							
		35	Lights, beacons, warning devices							
		36	Alarms (tilt, descent and travel)							
		37	Limit switches (e.g. descent, load, outreach, rotation)							
		38	Pothole protection device (fully deploys and retracts)							
		39	Oscillating axle locks, extending axles							
		40	Accessories, power to platform, extending decks							
		41	Jacks-legs, stabilisers, outriggers, levelling devices							
				Initialed:	Initialed:	Initialed:	Initialed:	Initialed:	Initialed:	Initialed:

ALL FAULTS AND DEFECTS TO BE REPORTED IMMEDIATELY TO YOUR SUPERVISOR

Only persons who are trained and authorised by their employer should operate this equipment.

OPERATOR NAME(S) AND PAL CARD NUMBER(S): _____

- Email to sea@ipaf.org for a copy of Pre-use inspection (English or Chinese) to be send over to you.



www.ipaf.org

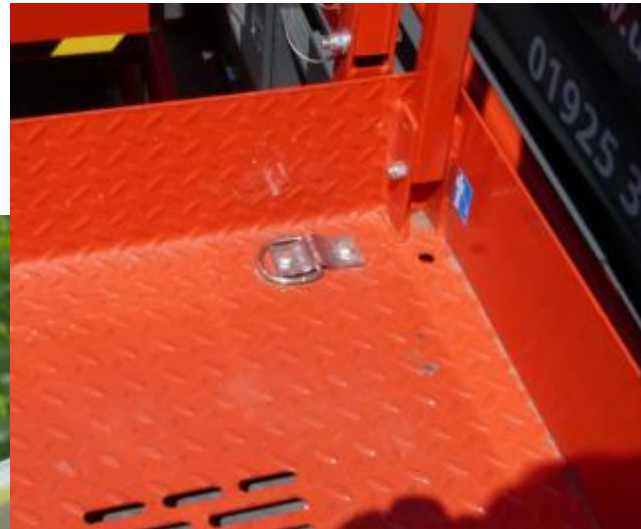
6 – Fall Protection



Designated Anchor Point



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Everyone Knows Fall Protection is Needed for a Boom Type Platform



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But Which Type?



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Fall Arrest or Fall Restrain? Does It Matter?



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Fall Restrain When Using Boom Type Platforms



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Full body harness

Restraint Lanyard

Designated anchor point

Correctly adjusted

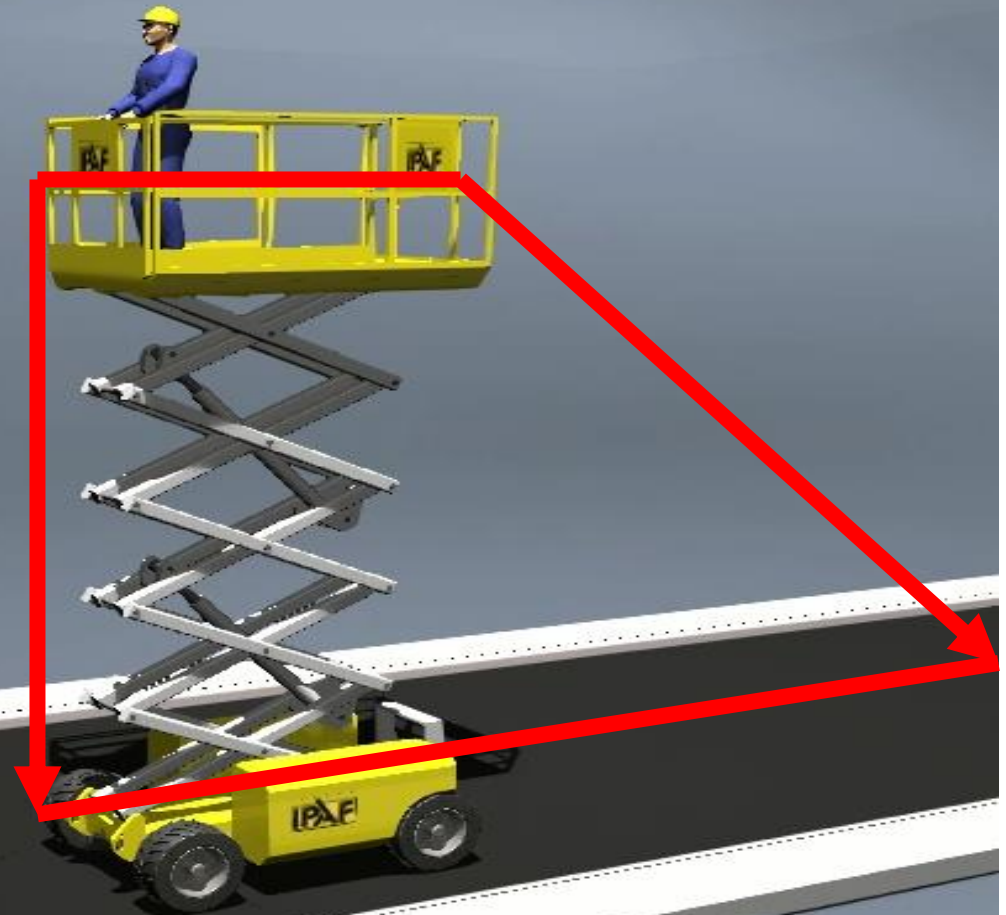


How About Verticals?



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**DO YOU UNHOOK
HARNESSE EVERY
TIME YOU
REVERSE ?**



Harnesses on Verticals?



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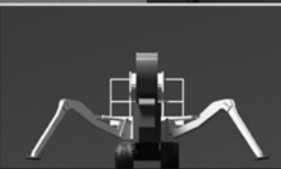
**IF YOU FELL
USING A
HARNESS,
WILL THE
MACHINE
COME DOWN
ON TOP OF
YOU?**





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7 – Hazard awareness and safe operation

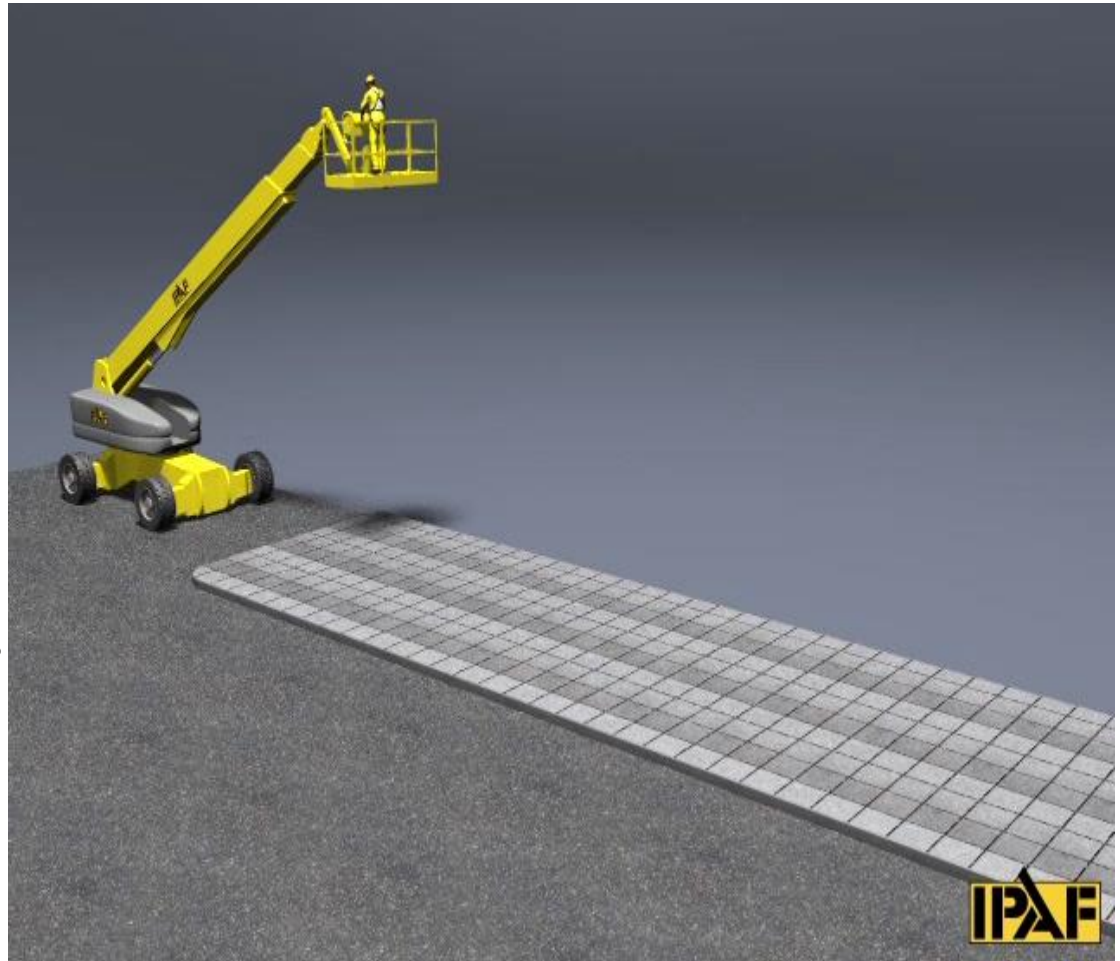


Movement and Travel – Route Check



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- Machine type and weight
- Walk the route
- Ground conditions
- Slopes
- Overhead hazards
- Situational awareness



Boom Lift Weight on Different Materials



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**Weight on slabs/
chipboard/scaffold boards**

Why Walking the Route is Important!



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Didn't See That Before?



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Ground Conditions



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Slope



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Situation Awareness



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Narrow Tracked Machines



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Tracked Machine Hazard



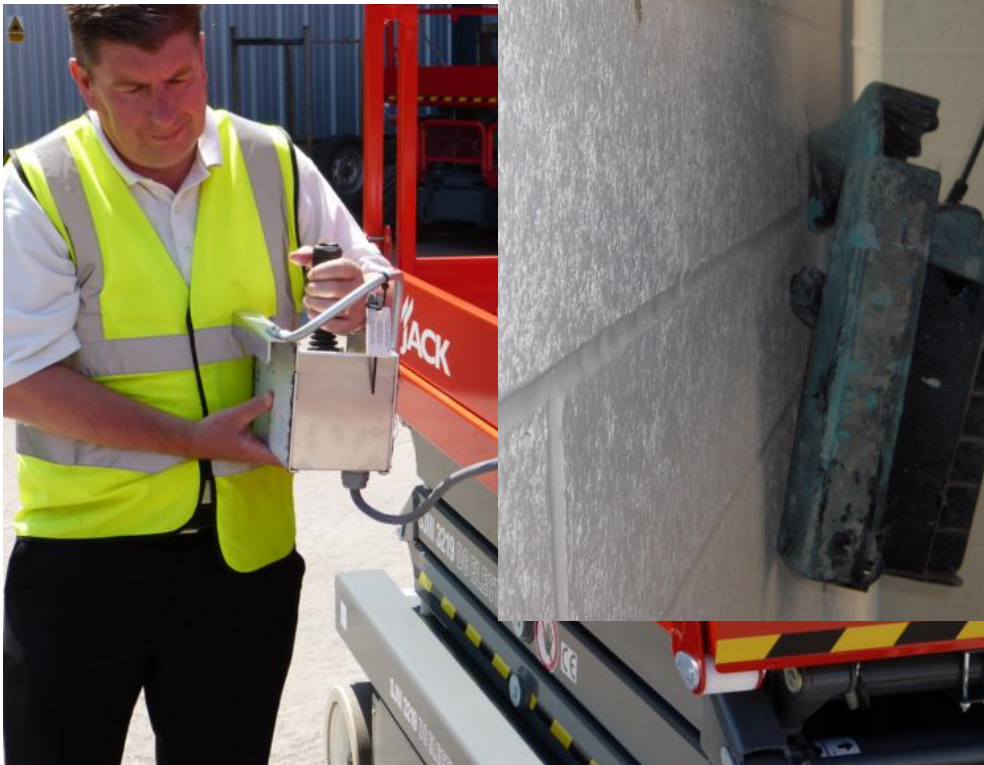
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Using Controls Out Of The Platform



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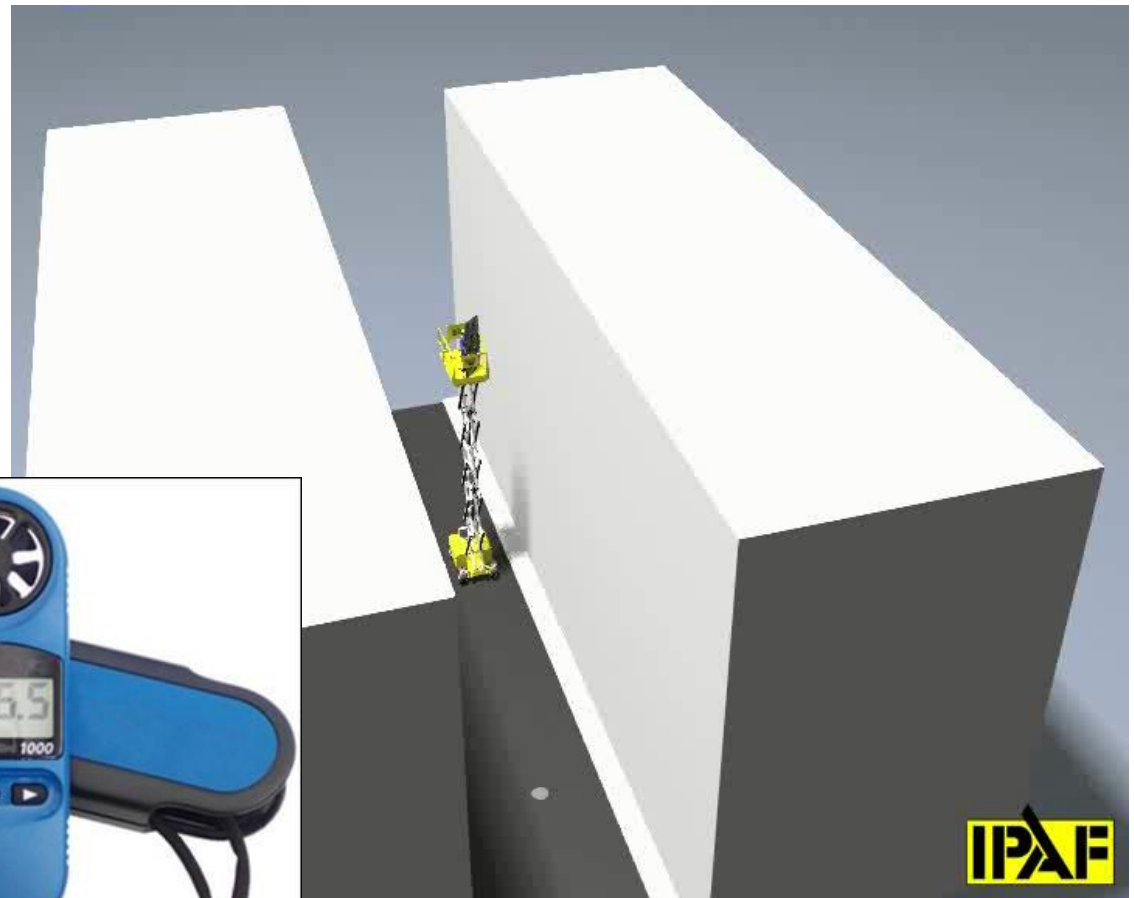
Autonomous Scissor Lift Operation



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Operation – Wind

- Funnelling
- Gusts
- Sheeting
- Wind-chill



Solutions or Hazards?



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MEWP Topped By Wind



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Manufacturers' Solutions



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LIFT ^ GUARD™ | PLATFORM MESH

Three options to choose from — full-height aluminum, half-height aluminum and a removable screen, these contemporary mesh accessories are engineered to help operators keep jobsite materials and tools from falling out of boom platforms working at height.



Full Mesh Platform



Half Mesh Platform



Screen Mesh Platform

Manufacturers' Solutions



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Enclose Your Platform

The mesh kit helps to keep materials and tools inside the platform.

Features and Benefits Include:

- Factory approved, ANSI compliant, design for side entry platform on JLG® machines
- Simple installation with only a screwdriver
- Keeps the platform enclosed
- Lightweight construction, which has no affect on rated capacity
- Meets requirements of many industrial job sites
- Kits include necessary decals



Mesh to Top Rail



Mesh to Mid Rail

Electrical Hazard - 9 and 15 metre rule



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	Electrocutation	Overturn	Entrapment	Fall from height	Hit by vehicle or object	Mechanical/Tech
2015	14	20	8	14	7	5
2014	9	17	7	25	4	2
2013	8	16	15	22	7	0



This is very real!



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8 – Overhead Hazard



Over Head Hazard



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It's Real! Plan Your Rescue!



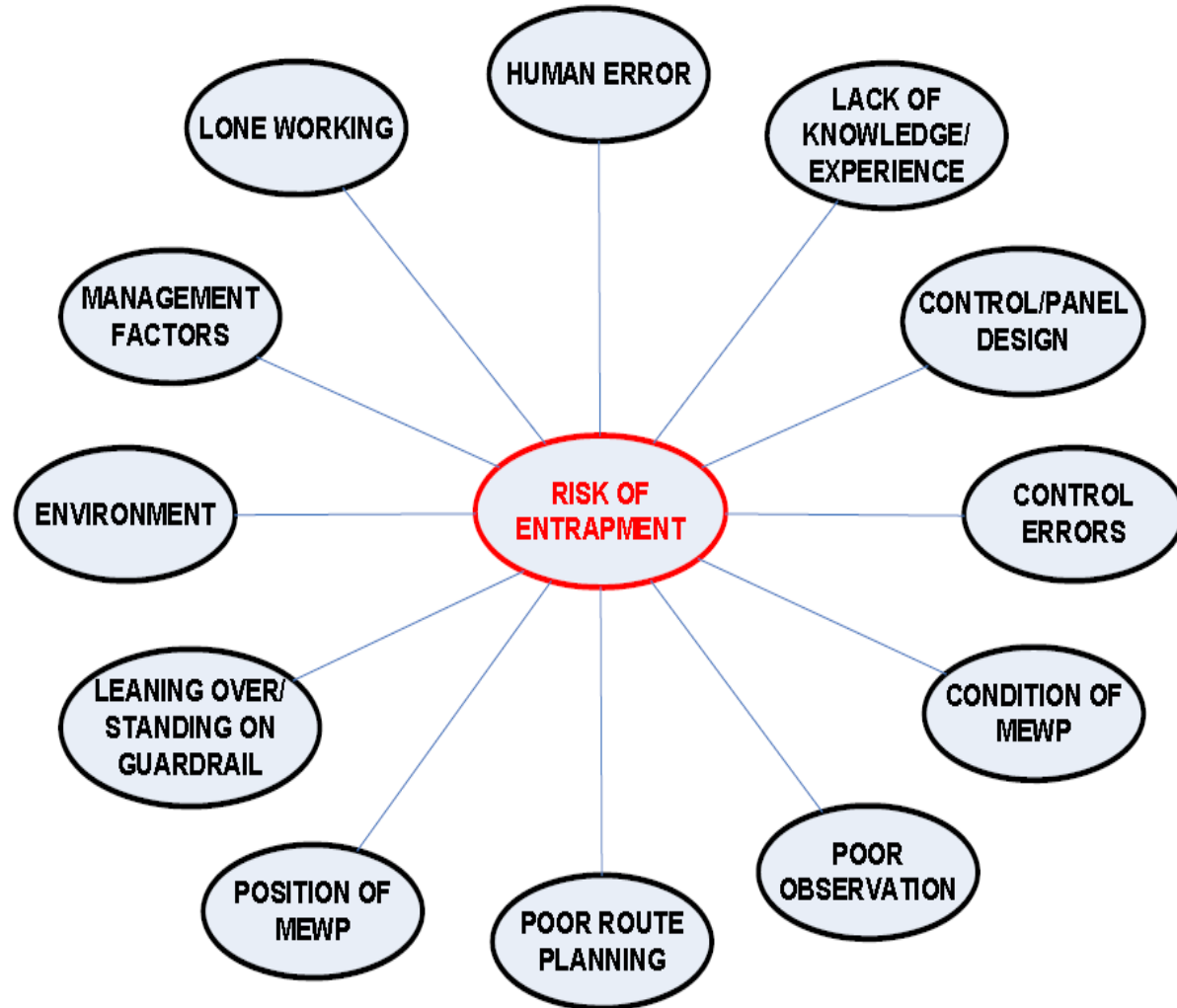
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Risk of Entrapment



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Best Practice Guidance for MEWPs

Avoiding Trapping / Crushing Injuries to People in the Platform



Strategic Forum for Construction
Plant Safety Group

- Reversing, Slewing or Elevating into an obstruction
- Unexpected movement of the boom near to an obstruction



- Poor MEWP route planning
- Poor MEWP selection
- Insufficient MEWP familiarisation
- Uneven ground
- Poor visibility at height
- Distractions when operating MEWP
- Objects placed on the control panel
- High drive speeds, or lack of care...
- Overriding MEWP controls
- Using faulty or poorly maintained MEWPs

Email to sea@ipaf.org for a copy of guidance

Do-It-Yourself! Its Cheaper!



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Secondary Guarding Devices For Overhead Hazards From Manufacturers



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SG-Mechanical



The Skyjack SG-E secondary guarding system

SG -Electrical

Secondary Guarding Devices For Overhead Hazards From Manufacturers



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Next generation of sensing technology – enhanced detection system (EDS)



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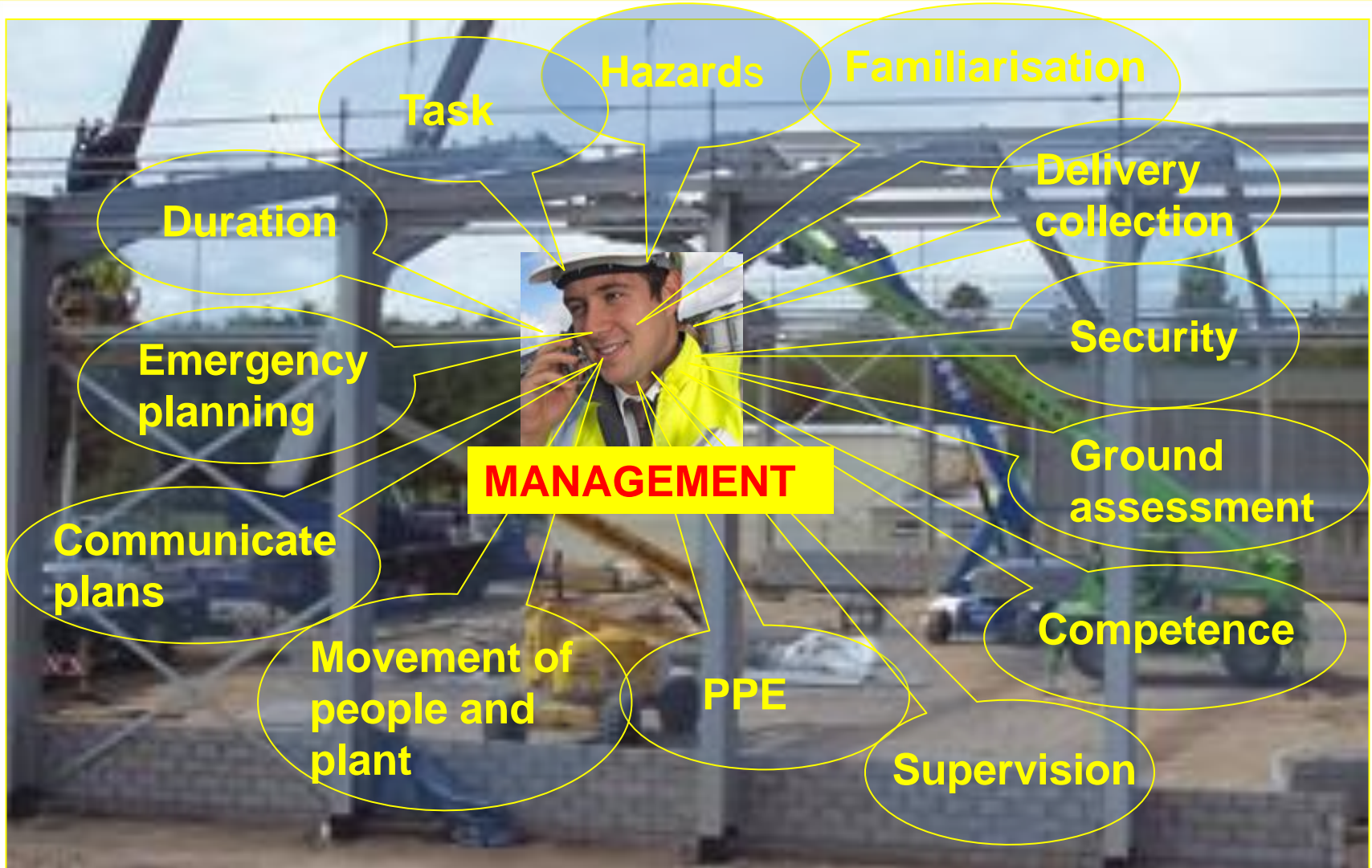
9 - Management



How Much Do I Need To Know?



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Selecting the Wrong MEWP for our Colleagues



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Security and controlled use



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Key pads



Smart cards



Emergency Rescue Plan



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Rescue plan

- Ensure ground key is available
- Appoint a ground rescue person
- Consider how to raise the alarm
- Decide who should effect the rescue and how

Rescue sequence

- Operator
- Ground staff
- Another MEWP



Are We ready When Things Happen?



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Emergency rescue planning



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Example emergency rescue plan for work at height from a Mobile Elevating Work Platform (MEWP)

This rescue plan has been compiled in order to comply with current legislation (Work at Height Regulations 2005) for people who work at height. It is to be brought to the notice of those exposed to the risk of working at height and those supervising and managing the same work at height.

Emergency Situation	Proposed Action
Failure of upper control functions while elevated	Where the normal upper control functions fail, the operator will use the auxiliary controls from the platform to lower the boom safely to the ground.
Failure of the operator to be able to operate the MEWP functions while elevated due to the following reasons: A. Operator incapacitated B. Auxiliary functions fail to operate from upper control station.	Where the operator is incapable of lowering the MEWP using the upper controls, an appointed person familiarised in the use of the lower 'ground' controls will lower the platform safely to the ground using the lower ground controls.
Failure of lower ground controls	Where the lower ground controls fail to allow the boom to be lowered safely to the ground, the appointed person will use the auxiliary ground controls to lower the boom safely to the ground.
Failure of ALL normal and auxiliary lowering functions	Where all normal and auxiliary functions have failed, the appointed person on the ground should refer to BS8460 section 6.6 Rescue from height.

Machine Type and Location:-

DATE: -		Persons made aware of rescue plan on site	
		NAME (print)	Signature

Email to sea@ipaf.org for A Copy



IPAF Guidance on Rescue Plan

1. Purpose

Under normal circumstances, back-up systems built into the machine will allow the operator to bring the platform of the machine to ground level under controlled conditions. It is extremely unusual for these systems to fail.

To ensure that a safe method of rescue is available when all other back-up systems for returning personnel to ground level have failed, the following procedures can be used.

2. Standard Operating Procedure

Ensure that all normal emergency lowering procedures have been activated.

Contact the site manager to report failure of back-up emergency lowering systems and request engineering back-up.

If, after inspection by the engineer, it is not possible to effect a repair to allow the machine to be brought to the ground, the site manager must be contacted for permission to carry out basket to basket rescue.

3. Code of Practice for Mid Air Rescue

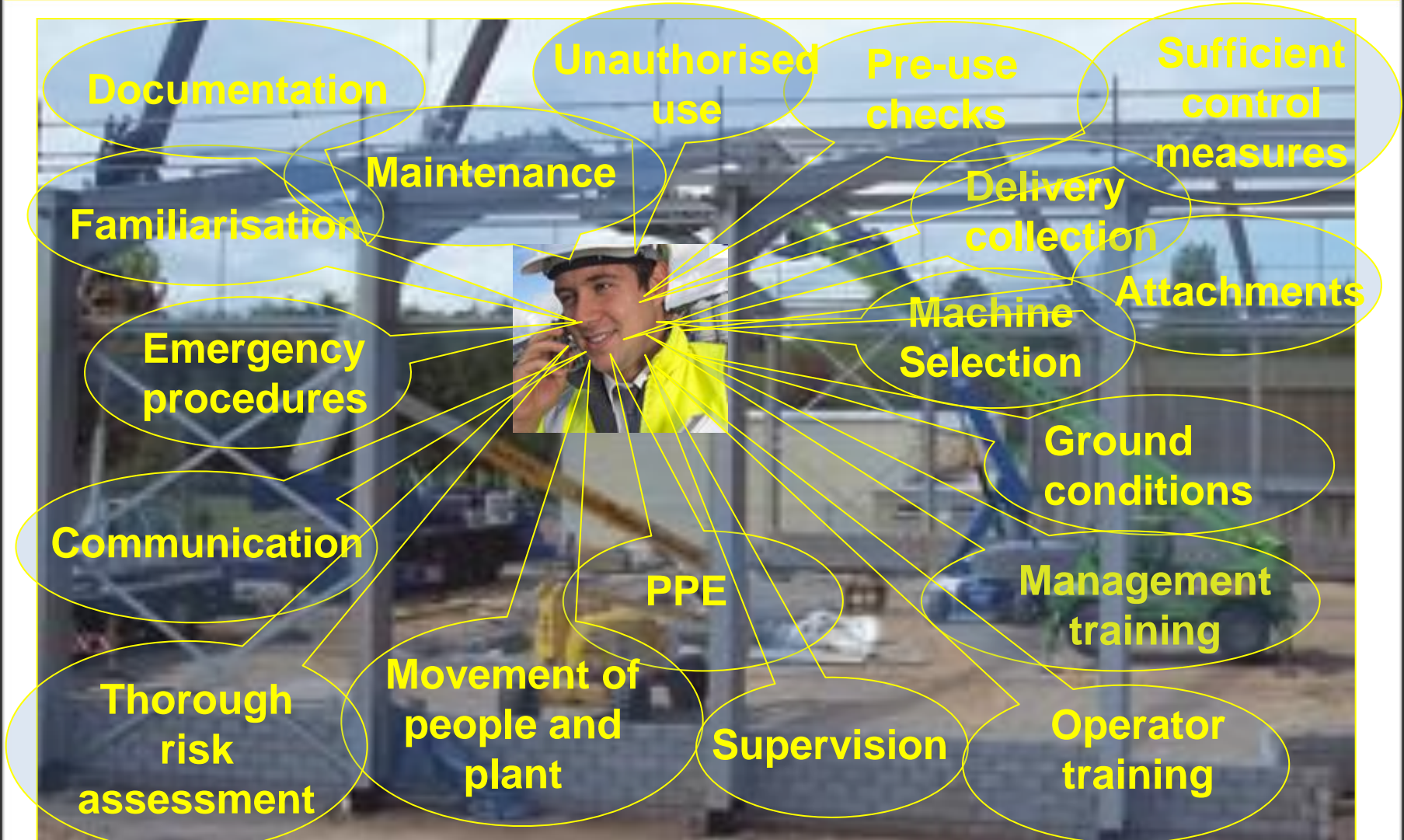
- A. The details of the risk assessment carried out shall be recorded onto the site-specific risk assessment form.
- B. The rescue machine must be positioned so as to enable the rescue procedure to be carried out without compromising the safety of personnel involved in the rescue.
- C. The platforms of both machines must be adjacent to each other with a minimal gap between them unless exceptional circumstances mean this is not possible. (Where this is not possible, the circumstances shall be recorded onto the risk assessment form.)
- D. A double lanyard must be attached to the person being rescued and the anchor points on both machines before the rescue takes place.
- E. Care must be taken not to overload the rescue machine. This may mean making more than one journey to complete the rescue.
- F. Where alternative emergency systems are not possible, consideration should be given for the use of an emergency evacuation system, examples of which are: control descent systems, crane basket rescue (this is not exhaustive).

Further guidance can be found in BS8460, section 6.6.

Supervisor / Manager responsibilities



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How to know the characteristics of MEWP?



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What does a Manager/Supervisor Need to Know?

- MEWP regulations, standards and guidance
- Machine types and use
- Structural parts and MEWP selection
- Operator training and familiarisation
- MEWP personal fall protection
- Operator pre-use inspection and rescue planning
- Planning exercise for two tasks on a fictional site
- The importance of planning
- Theory test

A certificate will be issued to all successful candidates



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