

# INTRODUCTION



1 person killed every 7 days on a construction site

1 fatality every 3 days involving a vehicle

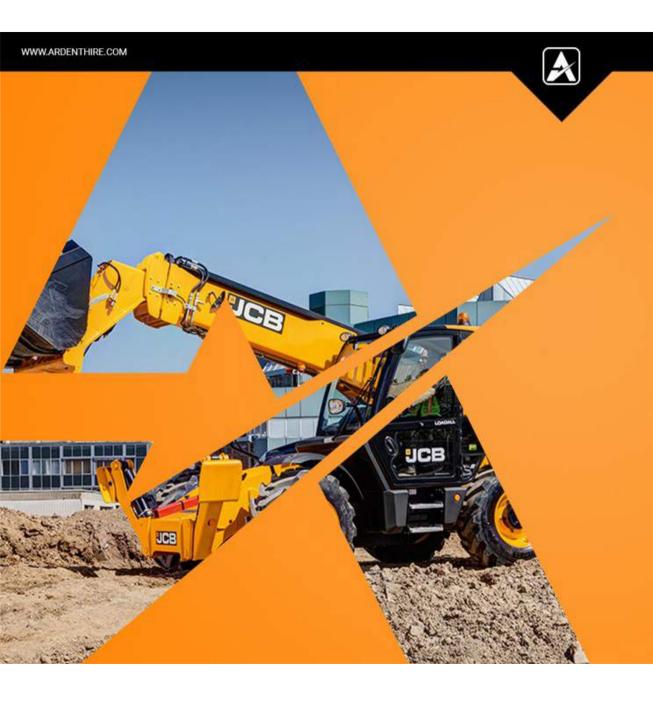
2 people died every 3 days at work



£73m in fines for health and safety breaches

2018





# SITE MANAGER







Site Manager is the only software tool in the hire industry today that provides a practical solution for improving productivity, reducing operating costs and reducing risks





**EXCAVATORS** 

Utilisation
Out of hours
Checkmate
H&S alerts



DUMPERS

Seatbelts
Loading/seatbelt compromise
Utilisation
Out of hours
Water in fuel
Air filter block
Low coolant
Oil pressure
Driving at speed
Checkmate
H&S alerts



ROLLERS

Utilisation
Out of hours
Checkmate
H&S alerts



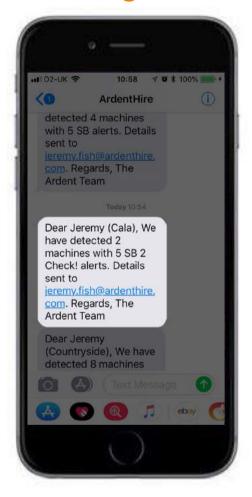
TELEHANDLERS

a | 1/745

Seatbelts
Utilisation
Out of hours
Driving at speed
Water in fuel
Idling
Low Battery
Time spent in reverse
Travelling with boom in air
Max speed reached per hour
Checkmate
H&S alerts



# **Site Manager:** Hot Alerts







Wed 24/10/2018 10:54

### sms@ardenthire.com

Ardent Machine Alerts for 24 October 2018 at 10:54

To O Jeremy Fish

Cc Customer service



### Dear Jeremy (Cala)

Please see recent Hot Alert(s).

Customer: CALA HOMES

Division: CALA HOMES (CHILTERN) LTD

### Telehandlers

Delivery Address	Machine	WIF	S/B	Check
Aspen Park, Haddenham	14MC0414			1Q
Aspen Park, Haddenham	18MT0073		08:32 (5)	3Q

**CheckMate:** (Operator answered 'No' to the following questions)

14MC0414 - Have you been given familiarisation for this machine? (3 DAYS RUNNING)

14MC0414 - Quality Check - test performed in 7 seconds

18MT0073 - Have you been given familiarisation for this machine? (2 days running)

18MT0073 - Is the seat belt fully operational?

18MT0073 - Are glazing and visual aids in good order?

18MT0073 - Quality Check - test performed in 9 seconds

### **Parameter Settings:**

Hot Alerts (notified hourly and daily - including weekends)

### Telehandlers

WIF - Water in Fuel

S/B - Seat Belts

Check - CheckMate daily machine check (\*)

### Excavators

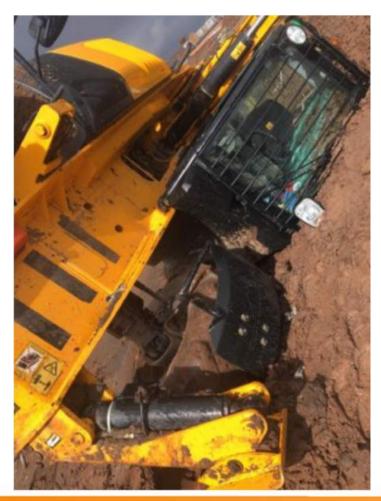
None selected

### Mini Excavators, Dumpers and Rollers

Check - CheckMate daily machine check (\*)



# Case Study: Edwalton Fields, March '18







# Case Study: Reducing risk

	Custo	mer				lisation	%	Ноц		Fi	iel Co		Fue	el Idle	CO2		Al	erts	
Site	es	Fit	ted 1	Rank		Var	Idle	Engine	Idle			Litres		Litres		Bat		S/B	DaS
Edwalton Fie Edwalton	elds.		2	1	74.1	23.7	23.5	154.9	36.4	7:	35	826	65	72	2,197	0	0	0	0
	Custom	er		U	tilisatio	n %		Hours		Fuel	Cost		Fuel	ldle	CO2		Al	erts	
Account	Sites	Filted	Rank			îdle	Engir				Lifre			Lifres		Bat			Das
BOVIS HOMES LIMITED (MERCIA)	13	14	4	51.7	1.3	27.4	1,67	4.2 45	7.1	8,734	9,8	13	747	839	26,103	0	0	1,277	0
BOVIS HOMES LIMITED (SOUTHERN)	12	20	5	51.5	1.1	27.2	2,18	3.1 59	3.7	10,508	11,80	07	997	1,119	31,407	0	0	246	5
BOVIS HOMES LIMITED (WESTERN REGION)	11	18	3	52.0	1.6	23.7	1,88	3.4 44	7.2	9,411	10,57	74	735	826	28,127	0	0	1,307	5
BOVIS HOMES LIMTED (NORTHERN HOME	16	22	1	54.4	4.0	29.4	2,55	9.2 75	3.1	12,612	14,17	71	1,231	1,383	37,695	0	0	1,064	2
BOVIS HOMES LIMTED (WEST MIDLANDS)	15	19	7	43.0	-7.4	18.3	1,58	9.6 29	1.3	8,325	9,38	54	474	532	24,882	0	0	148	9
BOVIS HOMES LTD (SOUTH EASTERN REGION)	14	20	2	53.7	3.3	25.8	2,31	7.8 59	3,1	11,826	13,28	88	1,021	1,147	35,346	0	0	592	3
BOVIS HOMES LTD (SOUTH WEST)	16	18	6	45.8	-4.6	24.8	1,63	1.3 40	4.7	8,199	9,2	12	657	738	24,504	0	0	1,672	0
																	0	6,306	24

Data is for last calendar month (i.e. March 2018)







# All Customer Groups Jeremy Fish | Site Manager | Admin | Log Off

BOVIS	<u> </u>	All divisions	~	All sites	~
TELEHANDLERS	EXCAVATORS	MINI EXC	DUMPERS	ROLLERS	OTHER
LAST 12 MONTHS	LAST 6 MONTHS	LAST 3 MONTHS	LAST 1 MONTH	THIS MONTH	LAST WEEK
BY MONTH	BY WEEK	BY DAY		EMAIL	REPORTS
Seathelt alerts					

### Seatbelt alerts Seatbelt alerts trend 20,000 18,000 16,000 14,000 12,000 10,000 8.000 6,000 4,000 2,000 Feb Dec Nov Jan Oct Apr May Jun Aug Period



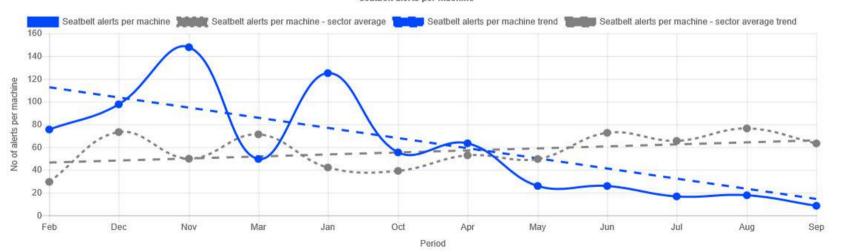




# All Customer Groups Jeremy Fish | Site Manager | Admin | Log Off

BOVIS	V	All divisions	~	All sites 🗸			
TELEHANDLERS	EXCAVATORS	MINI EXC	DUMPERS	ROLLERS	OTHER		
LAST 12 MONTHS	LAST 6 MONTHS	LAST 3 MONTHS	LAST 1 MONTH	THIS MONTH	LAST WEEK		
BY MONTH	BY WEEK	BY DAY		EMAIL	REPORTS		
Seatbelt alerts pe	r machine	Sector benchmarking	Housing sector				

### Seatbelt alerts per machine







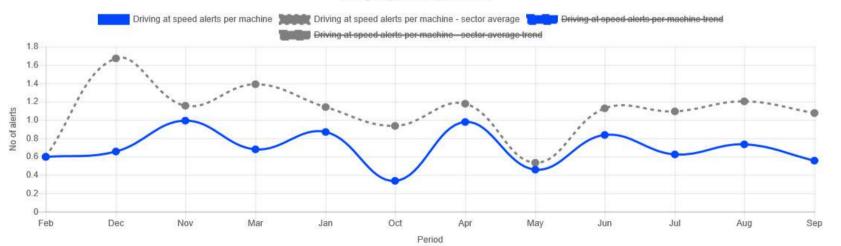


### All Customer Groups

Jeremy Fish | Site Manager | Admin | Log Off

BOVIS	~	All divisions	<u> </u>	All sites	~
TELEHANDLERS	EXCAVATORS	MINI EXC	DUMPERS	ROLLERS	OTHER
LAST 12 MONTHS	LAST 6 MONTHS	LAST 3 MONTHS	LAST 1 MONTH	THIS MONTH	LAST WEEK
BY MONTH	BY WEEK	BY DAY		EMAIL	REPORTS
Driving at speed o	alerts per machii 🗸	Sector benchmarking	: Housing sector		

### Driving at speed alerts per machine



Result: Improved driving behaviour. Better than peers



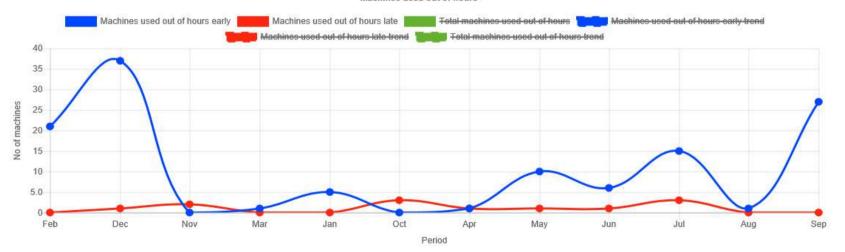


### All Customer Groups

Jeremy Fish | Site Manager | Admin | Log Off

BOVIS	~	All divisions	<b>V</b>	All sites	~
TELEHANDLERS	EXCAVATORS	MINI EXC	DUMPERS	ROLLERS	OTHER
LAST 12 MONTHS	last 6 months	LAST 3 MONTHS	LAST 1 MONTH	THIS MONTH	LAST WEEK
BY MONTH	BY WEEK	BY DAY		EMAIL	REPORTS

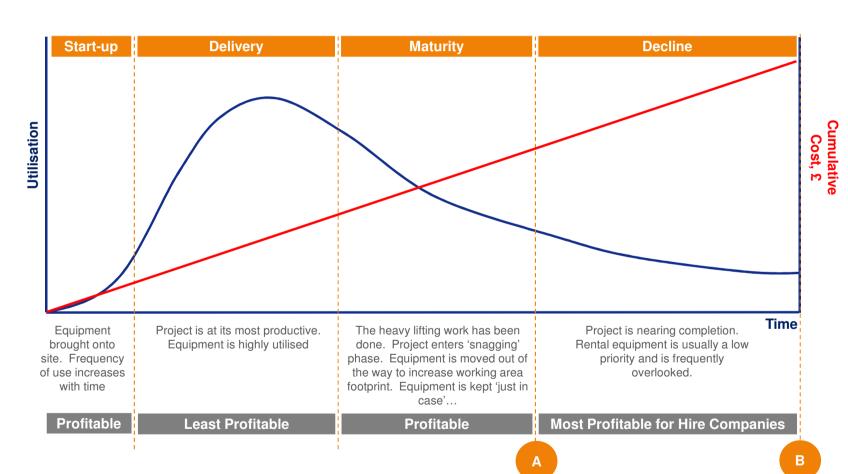
### Machines used out of hours



Result: Reduced theft opportunity by identifying out of hours utilisation and reduce lone working risk

# A

### Case Study: Reduce operating costs



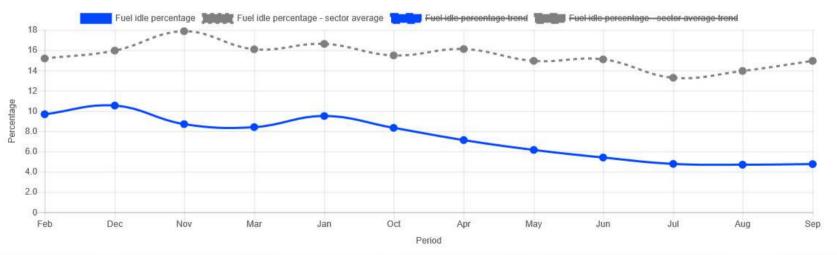
- Many sites off-hire equipment on a 'reactive' basis – i.e. point 'B'.
- Site Manager prompts customers to off-hire equipment on a 'proactive' basis – i.e. point 'A'.
- Users create utilisation 'thresholds' which trigger alerts if utilisation falls short.
- Alerts are emailed to users daily.
   Alerts include a link that can be used to off-hire equipment.
- If equipment is off-hired early, it can be more cost-effective to pay the transport to bring it back on site rather than paying ongoing rental charges.
- Depending on the number of machines on hire and the duration of the project, savings (i.e. the difference between 'A' and 'B') can range from £hundreds to £tens of thousands.



# Case Study: How to save £100k a year



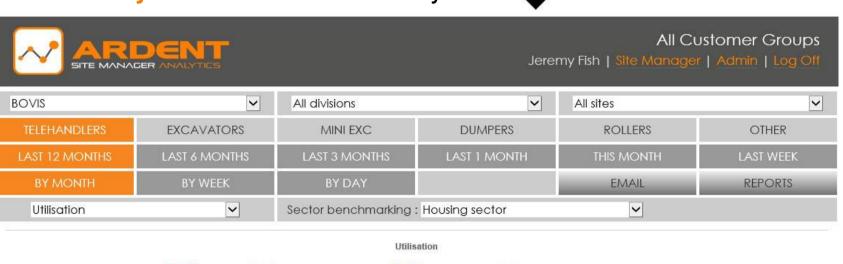
### Fuel used in idle as a percentage of fuel consumed

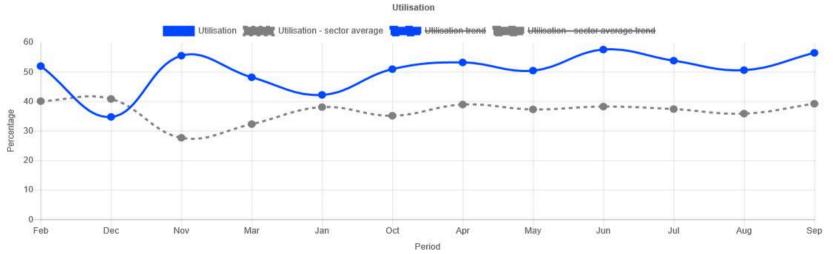


Result: Fuel idling as a %age of fuel consumed has halved. On average it is 10% below peers

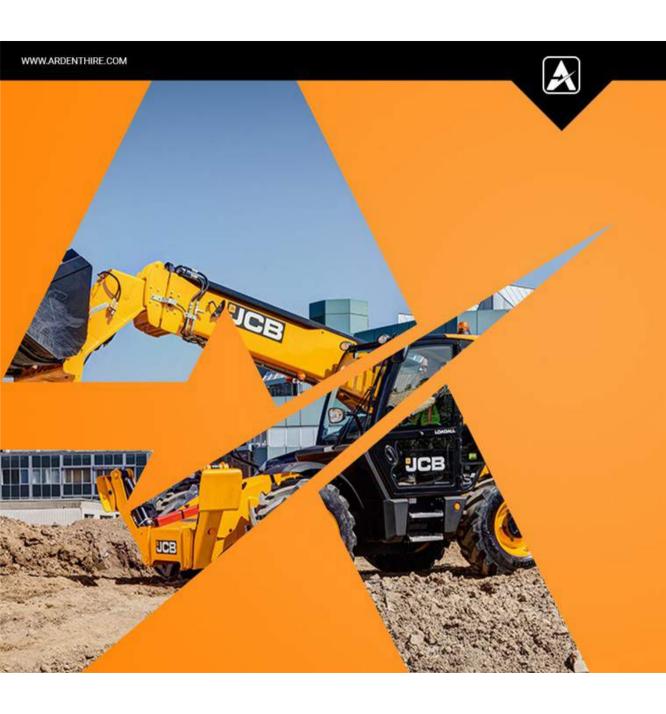


# Case Study: How to save £300k a year





Result: Improving utilisation above industry peers



# 13 ARDENT TV







### Kean Hancox ▶ Telehandler Operators UK & Ireland

8 hrs · 🔃

Help!! What is this warning for?



01

23 Comments







### Anthony William Palk ▶ Telehandler Operators UK & Irel...

16 July 2018 at 12:50 · 🖪

Anyone know what this fault code means





### Mika Patara ▶ Telehandler Operators UK & Ireland

16 May 2018 at 21:51 - London - 🖪

How to fix this lads?





### Marcus Jones ▶ Telehandler Operators UK & Ireland

7 February at 08:08 ·

Anyone know what this is see on here other day but can't remember



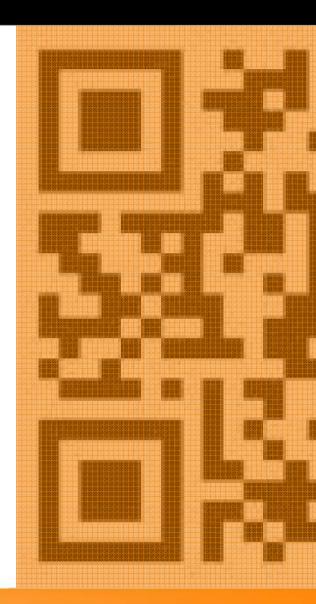
# A

### Online Site Support



- Ardent offers online site support to help minimise downtime, inconvenience and potential damage caused by misuse.
- The sticker is located inside the telehandler cab – online support can be accessed by scanning the QR code.
- A QR code scanner app is available for download from the Ardent web site.
- This is a free of charge service that is available on all Ardent telehandlers and excavators.

- · Reduces downtime;
- **Benefits:-** Reduces operating costs caused by downtime;
  - Reduces potential damage to equipment and charges.





- Ardent is now able to help customers meet these obligations with its new familiarisation videos that are delivered through Ardent TV.
- Requested by the customer to the hire desk at the point of order.
- Delivered by our driver.
- Available in English & Polish (Romanian available from Nov 2018).

### **Benefits:-**

- Consistency in content and delivery;
- Operator knowledge is tested at the end of each session;
- A familiarisation certificate is provided on successful completion along with an expiry date;
- Each session takes 15-20 mins;
- Reduces downtime arising from lack of operator knowledge or experience;
- Reduces the risk of damage through incorrect use or neglect.





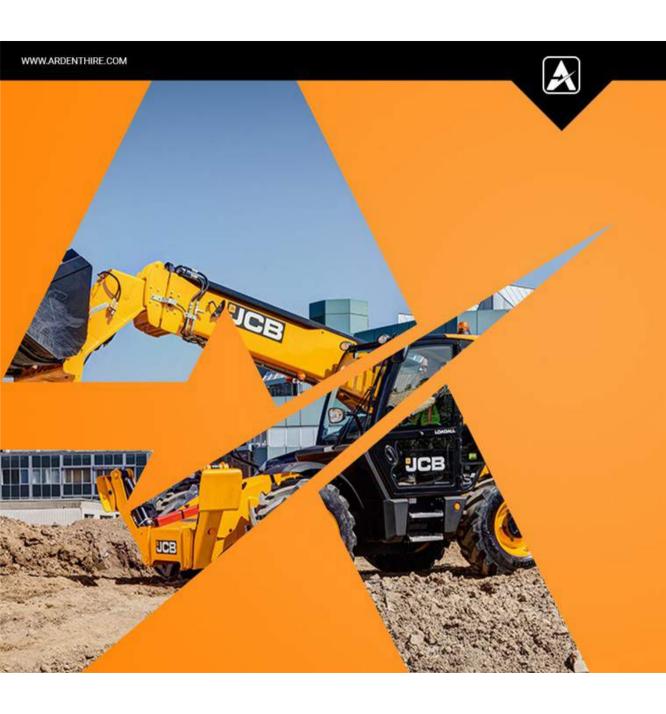
### RR1000 identifies IOOC as a serious issue that can be avoided with technology

- RR1000 Health and Safety Laboratory for the HSE 2014 "Inadvertent operation of controls (IOOC) in excavator plant insight, analysis and recommendations for prevention by design"
- "...inadvertent operation of excavator controls has the potential to cause serious injury or death; whether or not injury occurs is only a matter of chance."
- RR1000 concluded that IOOC is an important safety issue in the construction industry
- "...there are a number of viable and usable technical solutions...to IOC prevention"
- "The operator view was that IOOC risk could be reduced through improved excavator design and the introduction of new technology"
- "Forgetting control setting[s]" and "operating wrong switch" (page vii) were explanations identified by operators for IOOC.
- "IOOC is an issue that spans all manufacturers of excavator equipment." (p24)
- "IOOC occurs reasonably frequently." (p24)
- Most major accidents occur within 12 hours of equipment handover.
- Section 9 (part II) of the PUWER 1998 regulations places obligations on employers to provide familiarisation awareness on work equipment.



# Responsibilities and guidance for equipment familiarisation are provided in CPA1401 "Competence to Operate Construction Plant"

- Strategic Forum for Construction Plant Safety Group: "Competence to Operate Construction Plant", CPA1401, first published in May 2014
- P23, section 7.1 "Familiarisation"
- "...It is therefore essential that operators and supervisors are given adequate familiarisation on an unfamiliar type of model of the plant and/or attachment on which they have not been trained, before they begin operations. The employer of the operator is responsible for ensuring that familiarisation is undertaken".
- Familiarisation can be carried out by a "competent and authorised person".
- Familiarisation "should be recorded by both the provider and the employer of the operator".
- Should include:-
  - Layout and use of controls
  - Machine specific safe working procedures for connection and disconnection of attachments
  - Visual inspections
  - Pre-start checks



# **CHECKMATE**



# CheckMate

### Available as part of Site Manager

- All businesses must ensure that their equipment is used and maintained correctly to reduce the risk of accidents or damage to health and to meet health and safety requirements. Under health and safety law, employers have a duty to minimise risks to employees
- Regular equipment inspections can help identify potential faults before they develop into costly and dangerous defects
- · Reduces damage costs
- · Reduces risks of accident
- Promotes safe working and best practice
- Follows guidelines in the manufacturers' operating manuals











# **Working with Ardent**

The difference between ordinary and extraordinary is just a little extra

