

# ALLIGHTSYKES



RETRO-FIT  
& UPGRADE

THE SMART WAY TO FUTURE-PROOF YOUR EQUIPMENT FLEET

v.tr: **re-troh-fit.**

To modify equipment that is already in service using newly-developed parts, technology or systems which were not available at the time of original manufacture.



# LED RETRO-FIT & UPGRADE

## Why LED?

Let's face it, few technologies are truly transformational - so it's not surprising that the world of mining and construction equipment has been turned on its head with the arrival of LED mobile lighting.

Here's why:

- Huge fuel savings - less than 1ltr/hour
- Much lower maintenance costs - refuel every three weeks

- Convenient 500 hr service intervals
- No OH&S risk - safe extra low voltage (DC)
- 18t annual carbon footprint reduction compared with metal halide
- Glare-free light output
- Fuss-free plug and play lamps

## Why Retro-Fit & Upgrade?

The business you have today isn't necessarily the one you want tomorrow.

But you know that trying to stay ahead of the latest LED technology curve in this economy, sometimes means putting too much risk before any reward.

That's why we've launched our new LED Retro-fit & Upgrade option.

It means you can switch to LED even if timing and funding don't allow you to dispose of your traditional metal halide units and start from scratch again.

If you can't afford to adopt LED, at least let us help you adapt to it.

- Four Retro-Fit & Upgrade options to suit every budget and timescale
- Can be funded from R&M rather than Capex budget
- Perkins engines
- 5-10 years asset life extension
- Incorporate latest Total Control technology for remote monitoring



LAMPS POWERED BY HELLA





## LED and your Carbon Footprint

OK, LET'S GET TECHNICAL FOR A MOMENT.

One litre of diesel fuel typically weighs 0.83kg.

= **0.83kg**

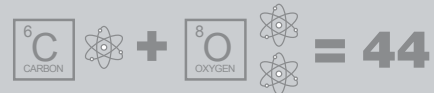
About 87% of this is carbon, so our one litre contains  $0.83 \times 87\% = 0.722\text{kg}$  of carbon.

= **0.722kg**

Each atom of carbon weighs 12 atomic units.



When it combines with two atoms of oxygen in the combustion process it becomes  $\text{CO}_2$ , which weighs 44 atomic units.



The 0.722kg of carbon in the original fuel then becomes  $0.722 \times 44/12 = 2.65\text{kg}$  of  $\text{CO}_2$ .

**2.65kg  $\text{CO}_2$**

HOLD THAT NUMBER FOR A MOMENT, BECAUSE HERE'S WHAT REALLY MATTERS.

We've worked with Perkins to get hold of a rather special 3 cylinder, 403-07 water-cooled engine which uses only 0.89 litres of diesel fuel/hr.

= **0.89Ltr**

An hour of running your retro-fit LED tower would therefore produce  $0.89 \times 2.65 = 2.35\text{kg/hr}$  of  $\text{CO}_2$ .

= **2.35kg/hr  $\text{CO}_2$**

Now, most 6kw metal halide lighting towers consume fuel at around 2.75 litres/hr. This therefore produces  $2.75 \times 2.65 = 7.29\text{kg/hr}$  of  $\text{CO}_2$ .

= **7.29kg/hr  $\text{CO}_2$**

Running the your retro-fit LED wherever it's appropriate rather than, a metal halide unit could therefore save  $7.29 - 2.65 = 4.94\text{kg/hr}$  of  $\text{CO}_2$ .

**4.94kg/hr  $\text{CO}_2$**

Which means 49.4kg of  $\text{CO}_2$  could be saved by every retro-fit LED lighting tower during a typical 10 hour 'shift'.

**49.4kg  $\text{CO}_2$**

Assuming your retro-fit LED tower is run every night 365, that's a saving of over 18 metric tonnes of  $\text{CO}_2$  per year per lighting tower.

By way of perspective, that's about the same annual  $\text{CO}_2$  output as three average sized cars.

# RETRO-FIT & UPGRADE OPT

## INCLUSION



### Platinum RETRO-FIT & UPGRADE\*

Full LED Retro-fit & Upgrade with Chassis Rebuild.



Retro-Fit & Upgrade - Complete rebuild including new LTM (403-07), chassis strip and respray, Total Control, HELLA lights, full ELV (extra low voltage) throughout, detailed inspection and replacement of ancillary components\*. Full 12 month warranty.



### Gold RETRO-FIT & UPGRADE\*

Full LED Retro-fit & Upgrade with Chassis maintenance.



Retro-Fit & Upgrade - Core changes only, new LTM (403-07), Total Control, HELLA lights, full ELV (extra low voltage) throughout. Inspection and general correction to minor ancillary and trailer components\*. Full 12 month warranty on replacement components.



### Silver RETRO-FIT & UPGRADE

LED Reconfiguring through AC to DC voltage conversion. New engine whilst maintaining existing controls.

Reconfigure - ELV up the mast, existing control unit maintained, inspection. Engine replacement (403-07) with voltage conversion from 240v AC to ELV DC. Six Month warranty on modified Lighthouse voltage conversion arrangements. 12 month engine warranty.



### Bronze RETRO-FIT & UPGRADE

LED Reconfiguring through AC to DC conversion utilising existing engine and controls.

Reconfigure - ELV up the mast, existing control unit maintained, basic inspection. Existing engine with voltage conversion from 240v AC to ELV DC. Six Month warranty on modified Lighthouse and voltage conversion arrangements.

\*Body damage, Hydraulic repairs, and wiring faults to be priced separately upon inspection.

# TIONS

	FEATURE	FUNCTION	BENEFIT
asset total extra month	As new specification featuring HELLA Hypalume LED Lamps, programmable auto on/off timer, option fleet management capabilities (GPS/Radio/Wifi), ELV low voltage tower (no HV test & tag required), total control.	Meeting the market demand for LED light towers. Cost advantages to CAPEX. Ease of use. The reliability of the AllightSykes light tower returned to peak performance with the full advantages of HELLA Hypalume LED.	Extended asset life (5-10 years), Increased operational uptime, 12 month warranty on all upgraded components. Fleet management (optional), Reduced operating costs (Lights/Fuel/Refueling), maintenance friendly, Carbon emission reduction (in line with Green focus), extended asset depreciation.
age extra ion f. ced	Near new specification featuring HELLA Hypalume LED Lamps, programmable auto on/off timer, option fleet management capabilities (GPS/Radio/Wifi), ELV low voltage tower (no HV test & tag required), total control.	Meeting the market demand for LED light towers. Cost advantages to CAPEX. Ease of use. The reliability of the AllightSykes light tower returned to peak performance with the full advantages of Hella Hypalume LED.	Extended asset life (5-10 years), Increased operational uptime, 12 month warranty on all upgraded components. Fleet management (optional), Reduced operating costs (Lights/Fuel/Refueling), maintenance friendly, Carbon emission reduction (in line with Green focus), extended asset depreciation.
basic ( month and s. 12	Economical HELLA Hypalume LED Lamp conversion option for Light Towers with higher engine hours, 5 year/50,000 hour HELLA Lamp warranty, 12 month engine warranty.	Meeting the market demand for LED light towers. Cost advantages to CAPEX. New engine confidence.	Fuel reduction benefits (0.95 l/h), new engine/alternator warranty (12 months), Cost effective, entry level HELLA Hypalume LED option, Reduced downtime (light replacements), minimal retraining required, extended asset life, maintenance friendly, Depreciable asset.
0v nty ge	Entry level HELLA Hypalume LED Lamp conversion option for Light Towers with higher engine hours, 5 year/50,000 hour HELLA Lamp warranty.	Meeting the market demand for LED light towers. Cost advantages to CAPEX.	Cost effective, entry level HELLA Hypalume LED option, Reduced downtime (light replacements), minimal retraining required, extended asset life, maintenance friendly option, Depreciable asset.

# SEE THE LIGHT

## How much light do you need?

When it comes to lighting up a work area, it's all about watts, lumens, lux – and view angle

As they relate to mobile lighting towers:

**Watts** are a measurement of the electrical power needed to operate each lamp.

**Lumens** are a measurement of the amount of light which each lamp or cluster of lamps is able to produce at the source (ie up in the air in the case of lamps on an extended mast). The rate at which your lamps convert watts into lumens is important, and is expressed as lumens per watt (lm/W).

**Lux** is a measurement of the usable light which reaches the work surface. They are calculated on the basis that 1,000 Lumens focused into one square metre lights up that square metre with an illuminance of 1,000 Lux. Similarly, the same 1,000 Lumens spread out over, say, 10 sqm, produces an

illuminance of only 100 Lux. Spread over 100sqm, they would deliver 10 Lux, and so on

The **view angle** is important because it indicates how much usable light will actually reach the work area. Due to the directional characteristics of traditional metal halide lamps, the bulb produces wasted light from the top and sides of the lamp casing. Not only is this less efficient, but it contributes to environmental 'light pollution'. The narrower beam angle featured on many LED lights provides illumination within the intended areas only.

Taking all that into account, each MS6k9 retro-fit LED tower will deliver around 100 Lux over an area of 1649 sqm.

To put that into perspective, a single Allight lighting tower will provide more than enough light for most areas of a mining operation which don't involve intricate and intensive tasks. Grab a copy of our task lighting sheet for more detail.

## RETRO-FIT MS6k9

This table presents the lux envelope at the furthestmost point in front and the width (left to right) of that envelope.

A final summary table allows comparisons per square metre to be made.



Model	Type of Light	Distance	Lux amount 1.2m above the ground						
			100 LUX	50 LUX	30 LUX	20 LUX	10 LUX	5 LUX	1 LUX
MS6K-9	MS6K-9 4 x 1.5Kw	In front (m)	65	85	100	115	140	175	270
	Metal Halide	Width (m)	50	66	80	90	120	166	300
	Lumens / Lamp: 145000	M <sup>2</sup>	2,552	4,406	6,283	8,129	13,194	22,815	63,615
MS9-LED	Hella - 4 x Close,	In front (m)	70	110	145	180	265	375	750
	4 x Long, 240w	Width (m)	30	42	52	68	80	120	250
	Lumens / Lamp: 22053	M <sup>2</sup>	1,649	3,628	5,922	9,613	16,650	35,342	147,258

Model	Total Lumens	Measurement	100 LUX	50 LUX	30 LUX	20 LUX	10 LUX	5 LUX	1 LUX
MS6k-9	580,000	M <sup>2</sup>	2,552	4,406	6,283	8,129	13,194	22,815	63,615
MS9-LED	176,424	M <sup>2</sup>	1,649	3,628	5,922	9,613	16,650	35,342	147,258



# Total Control



A fast and fuss-free end to guess-work and inefficient fleet performance management.

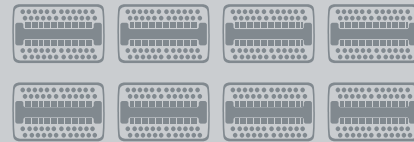
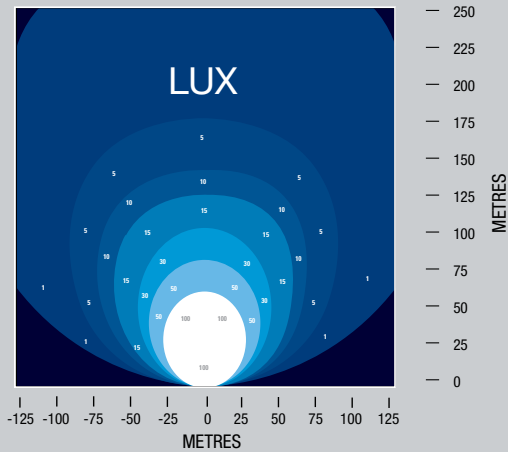
- Easy start/stop, location tracking and performance monitoring via notepad or smartphone
- Total Control recognises your tower and runs the diagnostics it most needs
- Instant alerts from plug and play control panel in the event of engine malfunction



**4**

Lamp Wattage  
1500w on  
MS6k9

## MS6K-9



**8**  
Lamp Wattage  
240w

## MS9-LED



				
	PLATINUM	GOLD	SILVER	BRONZE
Complete Chassis Strip & Repaint	●			
New Engine (Perkins 403D-07)	●	●	●	
New Alternator	●	●		
Total Control Panel	●	●		
8 x 220W HELLA LED Lights	●	●	●	●
ELV (Extra Low Voltage) Throughout	●	●		
Trailer Overhaul	●	●		
Replacement of ancillary components as required	●	●		
12 Month Warranty	●	●		
6 Month Warranty			●	●
Full Inspection	●	●		
Basic Inspection			●	●
240v to ELV volt conversion			●	●
Existing Control Panel			●	●

# ALLIGHTSYKES

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LIGHT



WATER



POWER