## Independent hot section & major overhaul expertise for LM2500(+) and LM6000

### Hot section or major overhaul coming up for your LM2500(+) or LM6000? Hot section & major overhauls account for the biggest share of all LM maintenance budgets.

Realistic indications of the investments required for these crucial maintenance projects are:

Engine	Type of maintenance	Project cost	Maintenance interval		
LM2500(+)	Hot section overhaul	<ul> <li>€ 550.000 - € 1.200.000</li> <li>€ 1.800.000 - € 2.500.000</li> <li>€ 1.300.000 - € 2.200.000</li> <li>€ 3.500.000 - € 4.500.000</li> </ul>	3 to 4 years		
LM2500(+)	Major overhaul		6 to 8 years		
LM6000	Hot section overhaul		3 to 4 years		
LM6000	Major overhaul		6 to 8 years		

**Question:** can more structured project management and smarter decision making lead to significant quality benefits and cost savings in overhaul projects?

**Answer: Yes they can!** Adding independent VBR expertise will realize significant quality and costs benefits for any LM hot section or major overhaul process.

Involving independent VBR expertise will obviously require an additional investment... However:

- ✓ This additional investment will be less than 1% of the total HS or MO project cost;
- ✓ This additional investment will pay itself back multiple times by the end of the overhaul process.

How can the involvement of VBR LM overhaul expertise generate this very quick return on investment?

### By providing in-depth expertise & experience about LM overhauls which will deliver:

- ✓ A more effective risk management on project scope, budget and turnaround time.
- ✓ A more professional, more controlled and more predictable overhaul process supported by smarter decision making.
- ✓ A far better tailored HS or MO project completed at a much better quality & price than you would have achieved without the support of an independent VBR expert.

Looking for an LM overhaul solution specifically tailored towards your business profile and operating purposes? Or interested in the most cost-effective LM overhaul solution available in the market today? Contact VBR to request a complimentary knowledge session with a VBR overhaul expert to address the questions that you or your on-site operation & maintenance staff might have around LM overhauls.

E-mail: consultancy@vbr-turbinepartners.com | Phone: +31 88 010 90 84



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# Contact details

VBR Turbine Partners Main office & warehouse Industrieweg Oost 6 +31 88 010 9030 6662 NE Elst sales@vbr-turbin The Netherlands www.vbr-turbine

+31 88 010 9030 sales@vbr-turbinepartners.com www.vbr-turbinepartners.com



# Overview hot section & major overhaul process



# LM2500(+) LM6000



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	Overview LM overhaul process	LM owner	Transport	Overhaul depot	VBR expertise	Predictability & control	Quality	Turnaround time	Cost saving
	<ul> <li>Preparation phase</li> </ul>								
	Define goal & planning LM hot section or major overhaul	•				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
, ys	Define preliminary overhaul scope	•				$\checkmark$	~	<ul> <li>Image: A second s</li></ul>	<ul> <li>Image: A set of the set of the</li></ul>
90 days	Tender out preliminary overhaul scope to licensed depots	•							
6	Review overhaul depot quotations for preliminary scope	•				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Ĭ	Decide on preliminary overhaul budget	•							$\checkmark$
L	- Decide on overhaul depot	•			٠	$\checkmark$	$\checkmark$		×
	- Execution phase								
	Remove LM engine from enclosure	•							
	Transport engine to selected depot								
	Disassemble engine into modules								
	Disassemble modules into component parts								
	Assess all component parts	•				$\checkmark$	$\checkmark$	$\checkmark$	
	Decide on component parts replacement vs. repair					$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	Agree on semi-final overhaul scope & price					<ul> <li>V</li> </ul>	×	<ul> <li>✓</li> </ul>	<ul> <li>Image: A set of the set of the</li></ul>
	Replacement & repair of component parts								
days	Monitor turnaround times replacement & repair parts					$\checkmark$		$\checkmark$	
120 days	Decide on unexpected findings during this process					$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Ð	Agree on final overhaul scope & price					$\checkmark$	~	<ul> <li>Image: A second s</li></ul>	<ul> <li>Image: A second s</li></ul>
Ĩ	Rebuild the modules								
	Rebuild the engine								
	Monitor turnaround times modules & engine rebuild					$\checkmark$		$\checkmark$	$\checkmark$
	Perform engine test								
	Witness engine test					$\checkmark$	$\checkmark$		
	Transport engine back to operator site								
	<ul> <li>Reinstall LM engine in enclosure</li> </ul>								
_	- Reporting phase								
- ys	Perform scrap review								
45 days	Depot submits overhaul report and final invoice								
4	Review of depot overhaul report and final invoice								
Ľ	- Submit overhaul evaluation report & recommendations						~		

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Impact of VBR independent expertise on LM hot section & major overhaul process

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