

**Job Report**

Material handling machine

# **LH 40 M Industry**

Litronic®

The LH 40 M Litronic  
material handling machine  
in Operation at  
Société Métallurgique d' Epernay



# **LIEBHERR**



## Situation

Scrap recycling conserves raw material resources, saves energy and alleviates the burden on the environment. For economic recycling, the end-of-life materials must be properly registered, sorted and processed in such a way that they can be used again as secondary raw materials. As a specialist disposal company with a state-of-the-art machine park and a comprehensive infrastructure, Société Métallurgique d' Epernay (SME) makes an important contribution towards this.

SME was founded in 1965 and is presently operating at a total of two sites in France (Épernay and Culoz) with about 70 employees. SME's main areas of expertise are demolition, asbestos removal and industrial waste and scrap metal recycling. Recycling operations such as sorting and reclamation, along with refuse container rental, are other areas in which SME is active. At the Culoz site, the focus is on dismantling scrap railway carriages and locomotives as well as sorting and recycling a whole

range of different materials. Here, up to 1,200 railway carriages and locomotives are dismantled each year, the numerous metals reclaimed from this are sorted out and subsequently recycled in the correct manner. Since, up until 1996, the railway carriages were sealed and insulated with asbestos, the dismantling process of these carriages is subject to a particularly complicated process. The carriages have to be completely stripped of asbestos before being dismantled. In order to ensure the requisite level of safety and protection for the health of the employees and the environment, SME has invested in collective and personal protective equipment. This includes a workshop with special extraction and filtering systems as well as personal protective equipment and safety suits. SME is one of the foremost specialists in this field and is certified in accordance with AFAQ and Qualibat 1552 for this purpose. Once the asbestos fibres have been removed, the railway carriages are fully dismantled.

## Task

In order to completely dismantle these railway carriages, a material handling machine needs to be acquired that has a high output and also frugal operation at the same time. Apart from a high performing machine, other aspects were of great importance to SME for the new purchase. The material handling machine has to be versatile in terms of deployment. Ideally, the machine's area of application should cover dismantling railway carriages with shears to sorting out the metals with a magnet, loading with an orange peel grabber as well as having the

capacity for demolition tasks beyond the company premises. Other demands on the material handling machine were a comfortable driver cab as, in this way, the machine operator is able to perform at a consistently high level. The service-friendliness of the machine and, in particular, the service-orientated design of the quick-change systems were a decisive procurement criterion. Permanent machine availability and reliability along with quick reaction times of the sales partner with regard to service and the provision of spare parts are equally as important.

## Solution

Liebherr-Hydraulikbagger GmbH embraced the customer's special needs and was able to offer a machine that indeed fulfills all requirements. The presented solution is the new LH 40 M Litronic material handling machine from the new LH model series of material handlers.

The material handling machine weighs approx. 39 tonnes and is equipped with a Liebherr diesel engine with 140 kW/190 HP, which meets the demands of emissions standard IIIB/Tier 4i thanks to the use of a Liebherr particulate filter. The standard energy recuperation system (ERC system) delivers an output of 226 kW. Moreover, the ERC system enables a reduction in fuel consumption of up to 30%.

The equipment configuration is a real speciality with extraordinary added value for the customer. This equipment features two Liebherr quick-change systems at the same time. It ranges from a straight boom with 7.60 m to the 3.60 m jib with tilt kinematic unit and the SW66 quick-change system with LIKUFIX, along with the 2.70 m jib extension with the MH40 quick-change system for suspended grabber systems. The advantage of the equipment is that all of the numerous tasks and deployment activities can be carried out with just one machine. In this way, the scrap metal shears can be attached to the LIKUFIX quick-change system directly and effortlessly without leaving the cab. With the MH40 quick-change system, changing from an orange peel grabber to a magnetic plate is also effortless and can be carried out in a matter of seconds conveniently from the cab. The standard Function Tool Control allows up to ten tools to be stored with the corresponding operating data (oil pressure, oil volume, etc.), which can be selected as required at the press of a button. Cleverly combining the quick-change systems with the Tool Control feature means that lengthy retooling operations are a thing of the past and it also means that the productivity of the machine is increased by up to

30%. For the various work applications, a Liebherr GM 64 multi-tine grab with 0.40 m<sup>3</sup>, Genesis GXP 400R scrap metal shears as well as a magnetic plate are used as attachment tools.

The LHC 255 hydraulic cab height elevator means that the driver can freely select the working height, thereby enabling an optimal view over the whole work area at all times. The standard rear area monitoring device, the protective grille on the cab as well as the reinforced windscreen and roof window enhance the safety for man and machine. The modern interior cab design offers the best prerequisite for healthy, productive work with effective concentration and the highest possible comfort. The pneumatic suspension comfort driver seat with seat heating and passive seat climate control, automatic weight distribution and many other extras forms the perfect ergonomic unit together with the colour touch-screen display and all control elements.

Thanks to the service-orientated design of the machine and the quick-change systems, the maintenance measures can be performed quickly and easily, thereby minimising the periods required for servicing. The LH 40 M Litronic material handling machine is LiDAT-ready, allowing the customer to localise the machine and access all relevant operating data at any time. Furthermore, LiDAT supplies appropriate service information, which contributes to optimal time management during maintenance of the machine. With the fast 24 hour spare parts service and 97% spare parts availability at Liebherr along with an exceptionally fast reaction time by the local sales and service partner, TECMAT Service, the customer can rest assured that not only the machine but also spare parts are available at all times.

In the past, SME has always had a very good experience with Liebherr and is also delighted with and very confident about the new LH 40 M Litronic material handling machine.





## Technical Data

Operating weight	approx. 39 tonnes
Engine type	Liebherr D934, 4 cylinder
Engine output	140 kW / 190 HP at 1,700 min <sup>-1</sup>
System performance	226 kW
Emissions stage	IIIB/Tier 4i

## Attachment

Boom	7.60 m straight
Stick	3.60 m with tipping kinematics 2.70 m stick extension
Quick coupling systems	SW66 with LIKUFIX MH40
Grab type	GM 64 with 0.40 m <sup>3</sup>
Max. reach	14 m
Max. load at 14 m reach and 1.5 m height	3.1 t

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