ATLAS Electric Material Handling Machines

6 highlights of the electrohydraulic E-power technology

6 highlights at a glance

1- *low energy costs due to higher efficiency.*

2- *service-friendly operation due to low maintenance requirements*

3- *no exhaust emissions – indoor operation possible.*
low-noise operation, low heat generation

4- *variable connecting options*

5- *vibration-free running – extended service life of all components*

6- *no stops for refueling required*

1 - low energy costs due to higher efficiency.

The efficiency of a diesel engine is approx. 35-40%.

The efficiency of an electric motor is approx. 90%

(losses are only cause by: friction - coil heating up – ventilation)

Sample calculation (at full load):

The energy content of 1 liter of diesel corresponds to approx. 9.8kWh.

350MH-Diesel	**approx. 17 l/hour**	**= approx. 167 kWh**
350MH-Electric	**approx. 52 kW/hour**	**= approx. 52 kWh**

The energy savings correspond to more than 50 %.

2 – service-friendly operation requiring almost no maintenance

The maintenance interval of a diesel engine is approx. 500 operating hours.
In addition costs are incurred for travel, engine oil, filter, engine coolant, etc.

The three-phase motors used by Atlas are virtually maintenance-free (visual inspection). A lubrication interval of the bearing is about 10,000 operation hours.

3 – no exhaust emissions – indoor operation possible

Environmental-friendly technology because the machine runs completely without exhaust emissions.
Heat and noise generation is low.
The driver can relax while working.
Ideally suited for use indoor and in problem areas.

4 – Variable connecting options

Together with you we develop possibilities of an electric connection of your machine.

Options:

- **Permanent electrical wiring directly to the master control cabinet of the machine**

- **Trailing cable**

- **Fully automatic electrically driven cable reel at the undercarriage**

5 and 6 – no vibrations – no refueling

The electric motor runs almost vibration-free. This gives the driver a completely new driving experience. In addition, the wear of all components is reduced (particularly hydraulic pumps)

No need for refueling stops and holding stock of diesel fuel (space and costs)

Electric engine parameters 160 MH-E / 250 MH-E and 350 MH-E

160MH-E
Main drive 75 kW / 400 V / 1480 rpm / IP 55 for powering the master hydraulic system

250MH-E
Main drive 90 kW / 400 V / 1480 rpm / IP 55 for powering the master hydraulic system

350MH-E
Main drive 132 kW / 400 V / 1480 rpm / IP 55 for powering the master hydraulic system