

TECHNICAL INFORMATION

The SMV SL 4-6 ECB models are a newly designed range of dedicated empty container handlers that have been developed to suit the handling of empty containers, and incorporate the latest technology in meeting rigorous existing standards. The main design features result from a thorough analysis of materials handling requirements that will ensure maximum productivity.

The SMV empty container handler range is manufactured in accordance with the following standards:

- ✓ EN 1551 Safety of Industrial trucks
- ✓ ISO 3046 Engines
- ✓ EN 12895 EMC tests
- ✓ ISO 10525 Stability tests

Chassis:

The chassis is constructed around two longitudinal welded box type steel profile sections which provides:

- ✓ High torsional strength
- ✓ Low concentration of stresses and strains

The fuel and hydraulic oil tanks are separately bolted to the chassis for ease of replacement.

Engine:

The truck is equipped with Volvo turbo charged, six cylinder engine with the following general characteristics:

- ✓ High performance engines with low fuel consumption
- ✓ High torque at low revolution
- ✓ Meeting or exceeding valid environmental emission regulations EU Stage 2 , Tier 2
- ✓ Electronically controlled

Transmission:

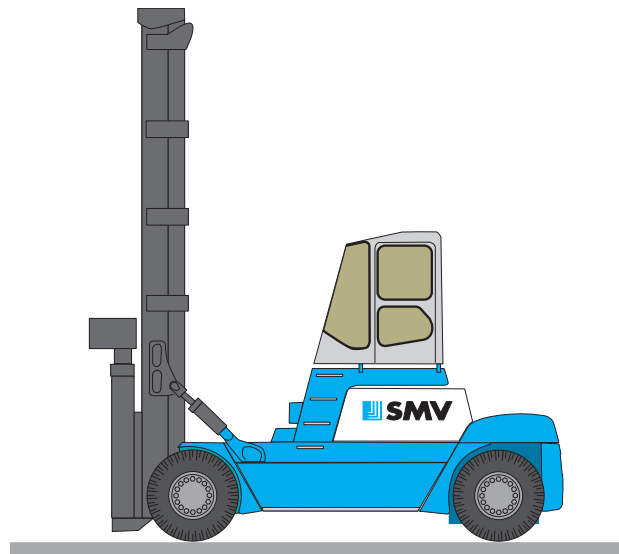
The truck is equipped with a DANA transmission bolted directly to the engine and connected via flexible steel plates. The transmission supplies 3 speeds forward and 3 speeds reverse. It incorporates a hydrodynamic torque converter with hydraulically operated clutches. Low internal oil pressure increases service life and reliability.

- ✓ DANA 340FTE 17310
- ✓ Automatic gearshift as standard

Drive axle:

The truck is supplied with a heavy-duty drive axle. The axle has a two stage reduction and integral "Wet Disc Brakes". The two-stage reduction reduces stresses in the axle transmission system.

- ✓ Kessler D81



Brake system:

The "Wet Disc" braking system for service brakes is mounted integrally in each hub. The system is totally enclosed from the outside environment and is virtually maintenance free. The cooling circuit maintains low temperatures in all conditions. The parking brake is a spring applied, hydraulically released (SAHR) separate disc brake mounted on the drive shaft. This system ensures that the brake fails safe in the event of hydraulic pressure failure.

Steer axle:

The steer axle is of SMV design providing the following characteristics:

- ✓ Robust axle beam
- ✓ Double acting, single steering cylinder well protected within the axle beam
- ✓ Mechanical "fuse links" protecting the steer cylinder from excessive stresses
- ✓ Roller type bearing and double spindle nuts to secure the king pin
- ✓ Provides an excellent wheel lock angle for narrow turning radius

Electric system:

24 volt alternator charged, rectified and stabilised system providing high power at low revs.

- ✓ Main fuses are located in battery compartment
- ✓ Electric central and fuses are located in cab
- ✓ All cables are protected by heat resistant conduit
- ✓ Clearly visible warning lamps and instruments
- ✓ Easy access to fuses and components
- ✓ CAN Bus J1939 communication engine/transmission
- ✓ Maintenance-free batteries
- ✓ Dust sealed instruments and switches on dashboard

Standard lighting:

- ✓ Full road lighting including:
- ✓ Two (2) headlights on mudguards (low/high beam)
- ✓ Tail / brake lights
- ✓ Direction indicators
- ✓ Reverse lights
- ✓ Two (2) working lights are mounted on the mast.
- ✓ Two (2) working lights are mounted on spreader and beam.

Hydraulics:

The hydraulic system is a load sensing system with variable piston pumps supplying hydraulic power on demand. This system offers the following benefits:

- ✓ Reduced sustained load of the engine
- ✓ Up to 10 % reduced fuel consumption
- ✓ Reduced wear on hydraulic components
- ✓ Enables extended lifetime on hydraulic oil
- ✓ Reduced hydraulic oil temperature
- ✓ Reduced emissions and noise levels
- ✓ Regenerative lift-system for faster liftingspeed

Operators cab:

The operators cab is a modular steel and glass construction offering the operator the best in ergonomics, protection and visibility. The cab features are as follows:

- ✓ Impact tested according to EN 1551:1994
- ✓ Documented safety for operator
- ✓ Large glass areas without front corner posts with excellent visibility in all situations
- ✓ Large area in roof window and low profile side windows
- ✓ Adjustable drivers seat, steering column and lever panel which gives safe and comfortable operators environment
- ✓ Cabin mounted on four rubber elements ensures low level of vibrations in operators compartment
- ✓ All instruments and switches placed in one panel located in the left front corner for easy control and good visibility in forward direction
- ✓ Slimmed steering column and steering wheel offers increased leg-room for driver
- ✓ Open area in panel right front corner for PC terminal or communication equipment

Lifting mast:

As standard the truck is equipped with a duplex type mast. The SMV lift masts are designed for maximum visibility. The mast structure is welded in high quality steel for optimum strength and fitted with full width load rollers and side thrust rollers between inner and outer sections to ensure complete alignment. The lifting cylinders, lifting chains and hydraulic hoses are designed and placed for minimum obstruction of operator's vision. The mast design ensures full utilisation of the hydraulic system which results in high lifting/lowering speeds.

Spreader:

The truck is equipped with ELME 588 telescopic side spreader for empty containers. The spreader is integrally mounted in the mast. The spreader offers following features:

- ✓ Twist locks accommodating to ISO and corner castings.
- ✓ Hydraulically manoeuvred extension beams gliding on nylon wear pads. Their stroke begins at 20' and ends at 40' position.
- ✓ The design incorporates +/- 300 mm of sideshift
- ✓ A land pin system allows the system to lock the twistlock when the spreader is properly seated.
- ✓ A safety system prohibits unlocking twistlocks in all carry positions when spreader is seated.
- ✓ Lowering interrupt as standard.

The manoeuvring of the spreader will be controlled from the operator's compartment via a joystick control.

Options:

SMV offers a number of value adding options such as:

- ✓ Air conditioning
- ✓ Alternative engines
- ✓ Side shift +/- 600 mm
- ✓ Electric machine control systems with 6.5" colour display
- ✓ Exhaust cleaning systems

Service and maintenance:

In order to reduce maintenance costs over the life of the machine, service intervals have been increased from every 250 operating hours to every 500 hours. The longer service intervals have been achieved by using maintenance- and lubrication-free bearings and graphite bushings in the mast and carriage. In addition, lubrication-free Teflon link bearings have been incorporated in the cylinders.

Also on the ELME spreaders longer service intervals have been increased from every 250 operating hours to every 500 hours.

For technical data please see technical data sheet.
For customising please contact SMV sales organisation
SMV reserves the right to alter design and material specification without prior notice.