

The Military Mobile Cranes Type FKL and FKM.



LIEBHERR

The better crane.



Although the mobile cranes FKL and FKM are special machines, they mainly consist of proved and reliable components also being employed in Liebherr standard models. These military cranes were adapted to the requirements of the Bundeswehr through extensive tactical trials and tests and brought to production stage.

For more than 30 years, Liebherr has been manufacturing mobile and crawler cranes with lifting capacities of up to 1200 tons and heights under hook of 224 m and is the leading European manufacturer of mobile cranes for many years. Since early February '94, Liebherr is able to manifest the certification of its quality assurance system (QA system) acc. to DIN ISO 9001. Consequently, the Liebherr FKL and FKM cranes are manufactured in accordance with the highest quality standard to date.



Subject to modifications.

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Challenged by severe competition Liebherr was awarded an important order from the federal office for military technics and procurement for the delivery of 459 mobile cranes totalling 271 million DM in 1990. By the end of 1994, 251 mobile cranes type FKL with 10 t and 208 mobile cranes type FKM with 20 t lifting capacity will be in operation with the Bundeswehr. Also the Dutch armed forces opted for 27 cranes type FKM already commissioned in 1991.

The Bundeswehr will employ the FKL and FKM cranes mainly for maintenance work on vehicles, for the handling of general cargo as well as for salvage and towing operation. The cranes will be in service with the army, e.g. with repair, logistic and engineer units and also with the air force and navy. The FKL is frequently employed by combat engineers, e.g. for loading and unloading of boats, collapsible floating bridges, tank bridges, or as shown here, components of a hollow-section bridge.



**The military mobile cranes
with 10t and 20t lifting capacity.**

Lifting operations performed by combat engineers, e.g. handling of pontoons of the Bodan ferry, is tackled by the FKM within a few minutes. Any motion of the 10 t pontoon is controlled by the safe load indicator. Hoisting and slewing gear have demonstrated their reliability in a thousand ways. The 3-step telescopic boom is of utmost torsional strength, telescoping is practicable under load. Three working motions can be performed simultaneously.



Collapsible road deckings enable to pass over trackless terrain. Loading of an 8 t package of road deckings on to a special transfer vehicle is only a matter of minutes for the FKL. During this operation the operator continuously receives information concerning the actual load, rate of crane utilization, radius, boom length and height under hook by analog and digital displays of the automatic safe load indicator. FKL and FKM are rapid-action cranes of high capacity not requiring any counterweight.



FKL and FKM surmount difficult ground due to their fording ability of up to 1.2 m.



The FKL and FKM cranes fulfill all tasks for the navy and air force within the scope



The good pick-and-travel capabilities of the FKL enable time and space-saving displacement of loads. For instance, handling of missiles in containers is realized without the use of trucks. The depositing platform at the rear of the FKL carries up to 10 t - or 16 t for the FKM. The cranes are driven and the loads are controlled from the operator's cab. Lifting operations of a missile unit are tackled by the FKL with ample safety reserves. Hoisting, slewing, luffing and telescoping motions are performed smoothly and without after-running.

The FKL handles tank engines by means of a special lifting bar; loads of up to 10 t - or 20 t for the FKM - can be displaced free on wheels.



**Technical demands of the army,
of required duties.**

The FKL and FKM are designed for on-road/off-road duty. All-wheel drive and differential locks, large cross-country tyres and powerful Diesel engines as well as 6-speed power-shift gears warrant first-rate propulsive power, a prerequisite to cope with the most difficult ground. More than 60 % gradability, overhang angles of 30° at the front and rear as well as the adjustable ground clearance by means of the „Niveaumatik“ are features of the successful mobile crane concept. FKM and FKL can tow broken down vehicles either in partial or complete rolling condition of up to 6.5 t on the hook. The hydraulic recovery winches of an 8 t rope pull at single and 20 t at double strand, in conjunction with tow-bars, idler pulleys and supporting pipes, are provided for salvage operations. The recovery winches can be mounted optionally, either to the rear or front of the vehicle.



The large 2-man driving cab seats are comfortably suspended. Control elements are standard. A large stow-away box provides accessories.

