

**HELLER**

# Lubrication chart

for HELLER machine tools

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# 1 Lubrication Chart

## 1.1 Use of Lubricants

### Proper lubrication

Selecting suitable lubricants enhances high work performance and helps to minimize machine down times.

The following table provides you with an overview of lubricants used for our machines.

Information on lubricant types to be employed on your machine and the frequency of exchange can be found in the lubrication instructions for your machine.

### Intended readership

The lubrication chart is intended for all persons responsible for lubricant provisioning or application on HELLER machines.

### Manufacturer / supplier selection

You can choose yourself the manufacturer or supplier providing you with the required lubricants.

But take into account that lubricants used on HELLER machines must comply with the required standards.

The standards listed are generally known and sufficient for unambiguous identification.

The supplier shall guarantee the quality of supplied lubricants.

### Scope

This lubrication chart applies for all HELLER machines. It shows all lubricants to be refilled or exchanged at regular intervals.

Lubricants in gear units lubricated for life are not listed here.

## 1 Lubrication Chart

## 1.2 Appropriate oils

## 1.2 Appropriate oils

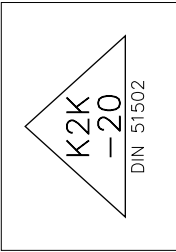
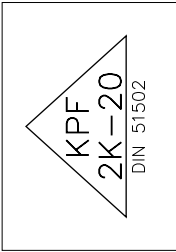
Designation DIN 51502	Designation ISO 6743	Application	Viscosity	Properties
HLP 46 DIN 51502	L-HM 46	Hydraulic oil, ambient temperature < 30 °C	At 40°C 46 ± 4,6 mm <sup>2</sup> /s	Hydraulic oil with active ingredients to increase the corrosion protection and resistance to ageing as well as to reduce wear according to DIN 51524, part 2
CLP 10 DIN 51502	L-CKC 10	For lubrication of high speed spindles and gear units	At 40°C 10 ± 1 mm <sup>2</sup> /s	Circulating oil with active ingredients to increase the corrosion protection and resistance to ageing as well as to reduce wear according to DIN 51502
CLP 46 DIN 51502	L-CKC 46	Gear oil for gear trains and central lubrication	At 40°C 46 ± 4,6 mm <sup>2</sup> /s	Circulating oil with active ingredients to increase the corrosion protection and resistance to ageing as well as to reduce wear according to DIN 51517, part 3
CLP 68 DIN 51502	L-CKC 68	Gear oil for gear trains and central lubrication	At 40°C 68 ± 6,8 mm <sup>2</sup> /s	Circulating oil with active ingredients to increase the corrosion protection and resistance to ageing as well as to reduce wear according to DIN 51517, part 3

Designation DIN 51502	Designation ISO 6743	Application	Viscosity	Properties
CLP 100 DIN 51502	L-CKC 100	Gear oil for gear trains and central lubrication	At 40°C 100 ± 10 mm <sup>2</sup> /s	Circulating oil with active ingredients to increase the corrosion protection and resistance to ageing as well as to reduce wear according to DIN 51517, part 3
CLP 220 DIN 51502	L-CKC 220	Gear oil for worm gears	At 40°C 220 ± 22 mm <sup>2</sup> /s	Circulating oil with active ingredients to increase the corrosion protection and resistance to ageing as well as to reduce wear according to DIN 51517, part 3
SAE80W API GL-4 SAE J 306 / DIN 51512	-	Synthetic high-performance gear oil for motor vehicle transmissions	At 100 °C min. 7,0 mm <sup>2</sup> /s	High-performance gear oil with selective raffinates for optimum wear protection even with high loads on tooth flanks, excellent low-temperature behavior Good compatibility with seals and non-ferrous metals, excellent foam resistance and corrosion protection
CLP PG 220 DIN 51502	-	Polyglycol based, synthetic high-performance gear oil	At 40°C min. 220 ± 22mm <sup>2</sup> /s	Circulating oil with active ingredients to increase the corrosion protection and resistance to ageing as well as to reduce wear according to DIN 51517, part 3

1 Lubrication Chart  
1.2 Appropriate oils

Designation DIN 51502	Designation ISO 6743	Application	Viscosity	Properties
CGLP 68 DIN 51502	L-G 68	Oil for slideways	At 40°C 68 ± 6,8 mm <sup>2</sup> /s	Oil for slideways with active ingredients to increase the corrosion protection and resistance to ageing as well as to reduce wear, including additives enhancing stick slip free movements
CGLP 220 DIN 51502	L-G 220	Oil for slideways	At 40 ° 220 ± 22 mm <sup>2</sup> /s	Oil for slideways with active ingredients to increase the corrosion protection and resistance to ageing as well as to reduce wear, including additives enhancing stick slip free movements
Metaflux 70-82 Moly- Spray	-	Metal pigmented assembly spray		High-performance lubricant and separating agent with anti-seize effect across the whole temperature range, from -80 °C up to +1.200 °C Pressure resistant up to a maximum of 3.600 kp/cm <sup>2</sup> (= 35.300 N/cm <sup>2</sup> ), high resistance against salt water, oil, organic solvents, non-oxidising lyes and acids, aluminium-free, metallic protective layer, reliable corrosion protection <b>Manufacturer item no.: 49.200946</b> <b>TECHNO-SERVICE GmbH</b> Detmolder Str. 515 D-33605 Bielefeld Phone: 0521-924440 Fax: 0521-207432 E-mail: info@metaflux.de Internet: www.metaflux.de

## 1.2 Appropriate greases

Designation DIN 51502	Designation ISO 6743	Application	Properties
	-	Antifriction bearing lubrication at low bearing speed	Lubricating grease for slide bearings and antifriction bearings, water resistant, worked penetration 265-295, operating temperature range -20 °C up to +120 °C according to DIN 51825, part 2
	-	Antifriction bearing lubrication	Lubricating greases for antifriction bearings, slide bearings and slide faces including active ingredients to reduce friction and wear in mixed friction areas and/or to increase the load bearing capacity, with solid lubricant additive, water resistant, worked penetration 265-295 operating temperature range -20 °C up to +120 °C according to DIN 51825, part 2



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1.3 Appropriate greases

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