



MACHINE INFORMATION

OWNERS MANUAL

SPARE PARTS

This file has been downloaded from SWEEP EX AUSTRALIA.

It is an "ENGLISH ONLY" version of the original file.

If you require support for other languages, please contact Karcher

<http://www.karcher.com>

If you require further support for sales, service, spare parts or just some general advice, please contact SWEEP EX AUSTRALIA on 1800 680 337

<http://www.sweepex.com.au/contact.htm>

Please note that due to a policy of continual improvement through research and development, specifications can change at any time. It is advised that you contact SWEEP EX AUSTRALIA before making any decisions based on the information contained in this document.

<http://www.sweepex.com.au/contact.htm>

1800 680 337

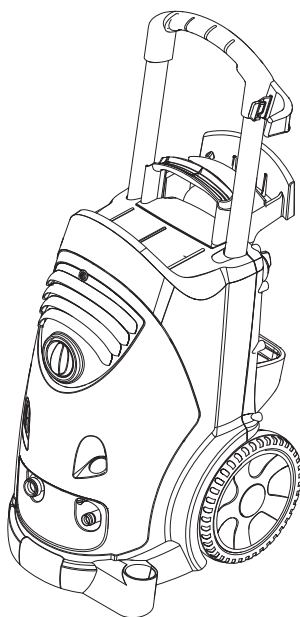
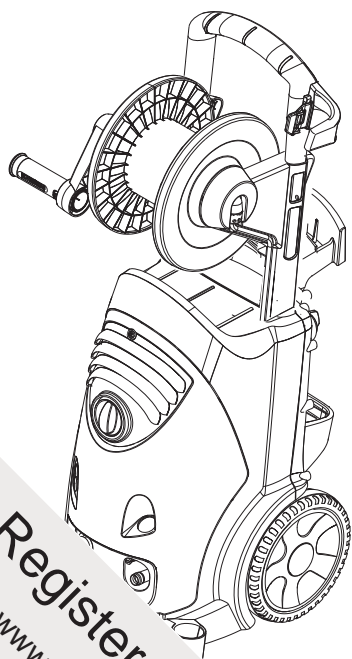
SWEEP EX AUSTRALIA
Karcher Industrial Cleaning Equipment
144 Adderley Street AUBURN NSW
1800 680 337

HD 6/11-4 M Plus
 HD 6/15-4 MX Plus
 HD 6/16-4 M
 HD 6/16-4 M Plus
 HD 6/16-4 MX
 HD 6/16-4 MX Plus

HD 7/12-4 M
 HD 7/16-4 M
 HD 7/18-4 M
 HD 7/18-4 M Plus
 HD 7/18-4 MX
 HD 7/18-4 MX Plus

HD 9/18 M
 HD 9/19 M
 HD 9/19 M Plus
 HD 9/19 MX
 HD 9/19 MX Plus

HD 9/20-4 M
 HD 9/20-4 M Plus
 HD 9/20-4 MX
 HD 9/20-4 MX Plus



Deutsch	6
English	18
Français	29
Italiano	41
Nederlands	53
Español	65
Português	77
Dansk	89
Norsk	100
Svenska	111
Suomi	122
Ελληνικά	133
Türkçe	146
Русский	157
Magyar	170
Čeština	182
Slovenščina	193
Polski	204
Românește	216
Slovenčina	228
Hrvatski	240
Srpski	251
Български	262
Eesti	274
Latviešu	285
Lietuviškai	297
Українська	203

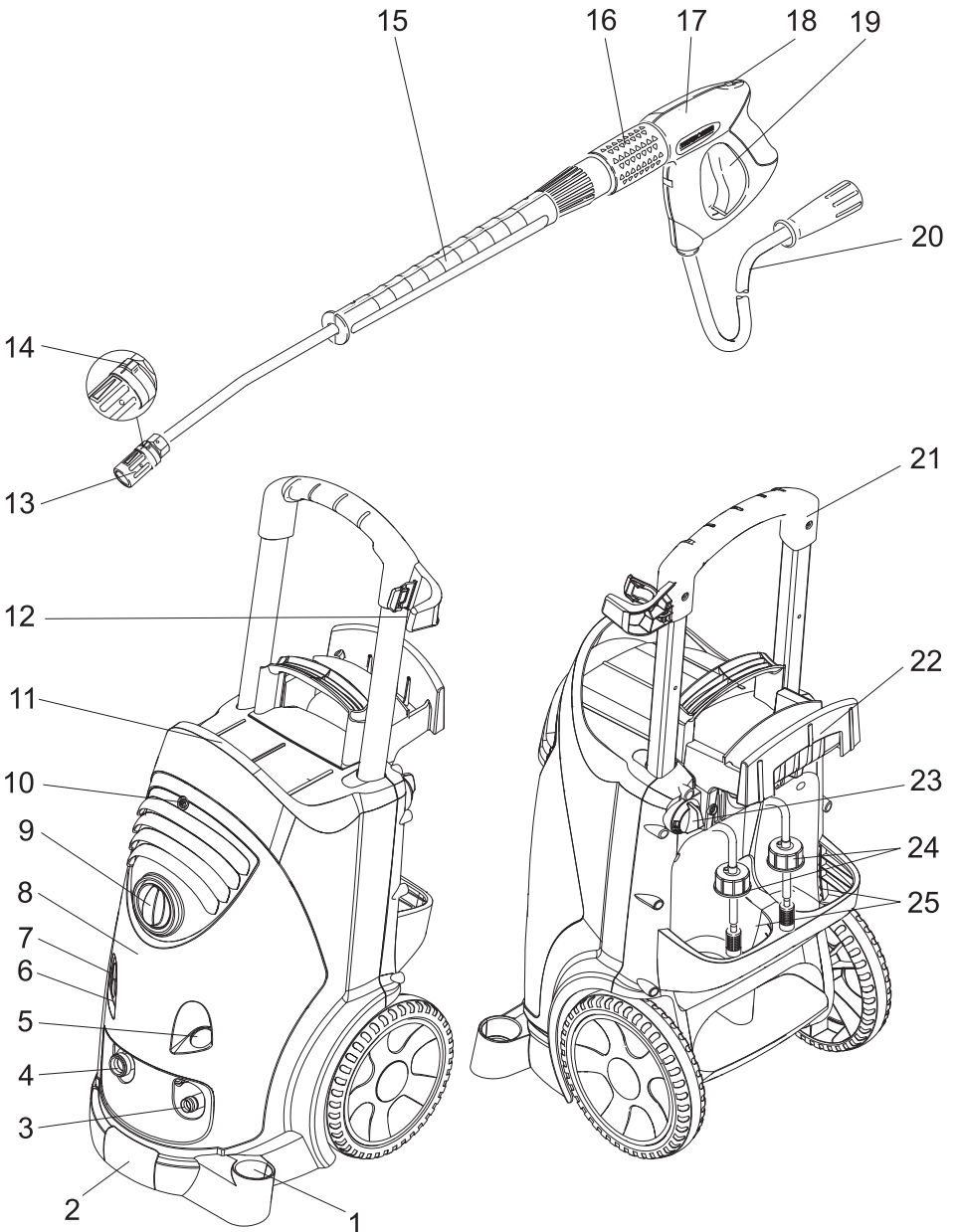
Register and win!
www.kärcher.com!



HD 6/11-4 M Plus
HD 7/12-4M
HD 7/18-4 M Plus
HD 9/19 M Plus

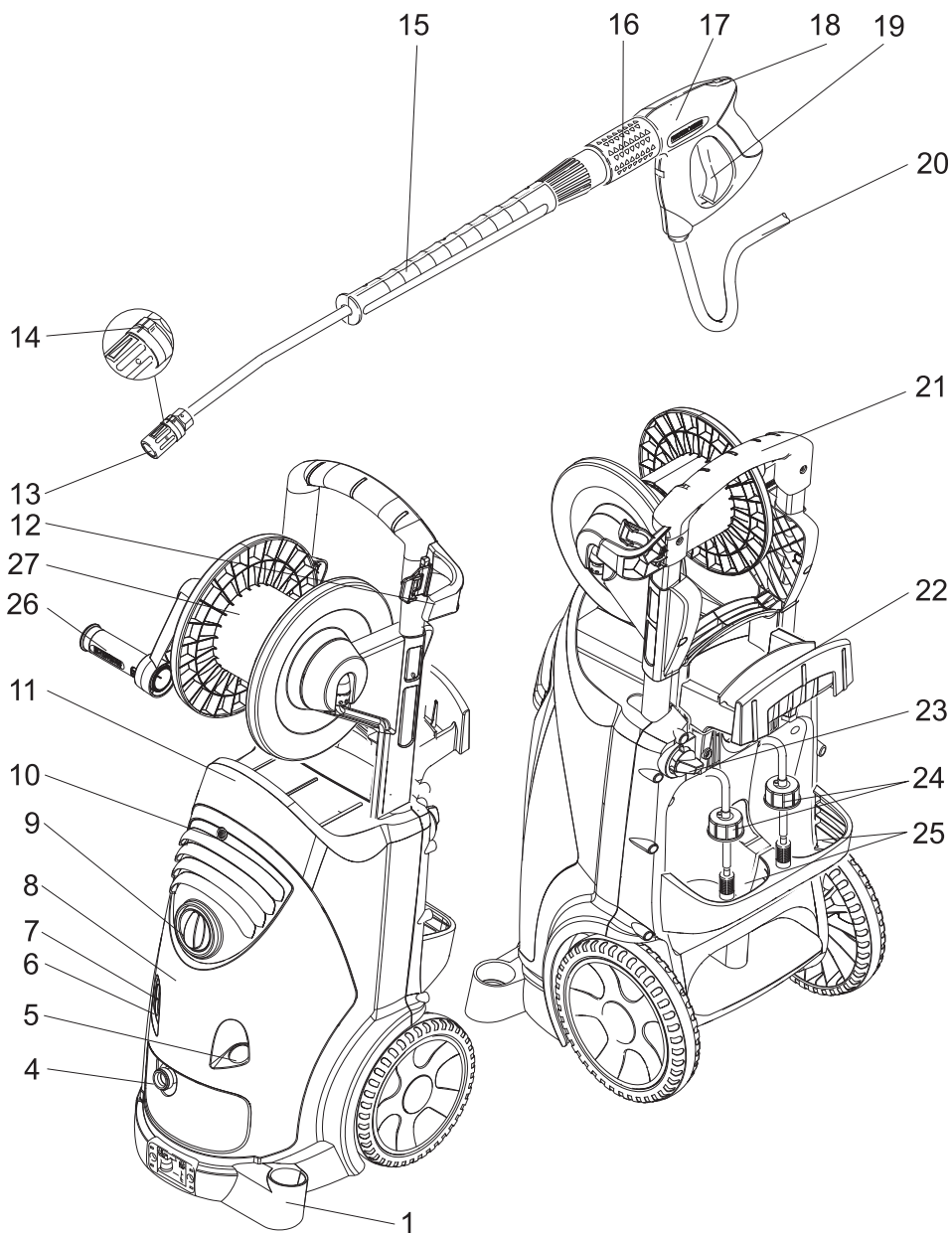
HD 6/16-4 M
HD 7/16-4 M
HD 9/18 M
HD 9/20-4 M

HD 6/16-4 M Plus
HD 7/18-4 M
HD 9/19 M
HD 9/20-4 M Plus



HD 6/15-4 MX Plus
HD 6/16-4 MX Plus
HD 7/18-4 MX Plus
HD 9/19 MX Plus
HD 9/20-4 MX Plus

HD 6/16-4 MX
HD 7/18-4 MX
HD 9/19 MX
HD 9/20-4 MX





Please read and comply with these instructions prior to the initial operation of your appliance. Retain these operating instructions for future reference or for subsequent possessors.

Contents

Device elements	18
For Your Safety	18
Proper use	18
Safety Devices	19
Environmental protection	19
Before Startup	19
Start up	19
Operation	20
Maintenance and care	22
Troubleshooting	23
Spare parts	24
Warranty	24
CE declaration	24
Technical specifications	25

Device elements

Please unfold the front picture side

- 1 Storage compartment for nozzles
- 2 Handle
- 3 High pressure connection
- 4 Water connection
- 5 Manometer
- 6 Oil level indicator
- 7 Oil tank
- 8 Cover
- 9 Power switch
- 10 Fastening screw for device hood
- 11 Storage compartment for hoses
- 12 Handgun storage clip
- 13 Nozzle
- 14 Marking of the nozzle
- 15 Spray lance
- 16 Pressure/ quantity regulation
(not with HD 9/18 M)
- 17 Hand blowing gun
- 18 Safety lever

- 19 Lever for hand spray gun
- 20 High pressure hose
- 21 Push handle
- 22 Cable clamp
- 23 Dosage valve for detergent
- 24 Detergent suction hose with filter and screw-on lid
- 25 Bottle holder for detergent
- 26 Crank
- 27 Hose drum

For Your Safety

Before first start-up it is definitely necessary to read the operating instructions and safety indications Nr. 5.951-949!

Symbols on the machine



High-pressure jets can be dangerous if improperly used. The jet may not be directed at persons, animals, live electrical equipment or at the appliance itself.

According to the applicable regulations, the appliance must never be used on the drinking water supply without a system separator. Use a suitable system separator manufactured by KÄRCHER; or, as an alternative, a system separator as per EN 12729 Type BA. Water flowing through a system separator is considered non-drinkable.



Proper use

Use the devices exclusively for

- Cleaning using low pressure jet and detergent (for e.g. for cleaning machines, cars, buildings, tools),
- For cleaning using high pressure jet without detergent (for e.g. for cleaning facades, terraces, garden appliances).

For stubborn dirt, we recommend the use of the dirt blaster as a special accessory.

HD...Plus includes a dirt remover as part of standard delivery.

Safety Devices

Overflow valve with pressure switch

While reducing the water supply/quantity regulation at the pump head, the overflow valve opens and part of the water flows back to the pump suck side.

If the lever on the trigger gun is released the pressure switch turns off the pump, the high-pressure jet is stopped. If the lever is pulled the pump is turned on again.

Safety valve

The safety valve opens when the permissible operating pressure is exceeded; water flows back to the suction side of the pump. The overflow valve, pressure switch and safety valve are set and sealed at the factory.

Setting only by customer service.

Environmental protection



The packaging material can be recycled. Please do not place the packaging into the ordinary refuse for disposal, but arrange for the proper recycling.



Old appliances contain valuable materials that can be recycled. Please arrange for the proper recycling of old appliances. Batteries, oil, and similar substances must not enter the environment. Please dispose of your old appliances using appropriate collection systems.

Before Startup

Unpacking

- Check the contents of the pack before unpacking.
- In case of transport damage inform vendor immediately

Check oil level

- Read the oil level display when the device is not running. The oil level must be above the two pointers.

Activate deaeration of oil container

- Unscrew the fastening screws of the device hood; remove the device hood.
- Cut off tip of oil container cover
- Fasten the device hood.

Attaching the Accessories

- Mount the nozzle on the spray pipe (markings on the adjustment ring at the top).
- Install spray pipe on the hand-spray gun with pressure and volume regulation.

Note

Only with HD 7/10 CXF:

When space is limited, the enclosed adapter with nozzle can be mounted directly to the hand spray gun.

In devices without hose drum:

- Fasten the high pressure hose to the high pressure connection.

In devices without hose drum:

- Insert the crank in the hose drum shaft and lock it in.
- Before rolling up, stretch out the high pressure hose.
- Wind the high pressure hose in uniform layers on the hose drum by rotating the crank. Select the rotation direction in such a way that the high pressure hose does not get bent.

Start up

Electrical connection

Warning

The appliance may only be connected to alternating current.

The appliance may only be connected to an electrical supply which has been installed in accordance with IEC 60364.

The voltage indicated on the type plate must correspond to the voltage of the electrical source.

The minimum fuse rating required at the socket outlet is (see technical specifications).

The maximum tolerable mains impedance at the electrical contact point (see Technical Data) must not be exceeded.

The appliance should always be connected to the electrical mains using a plug. It is forbidden to permanently connect the appliance to the power supply. The plug is only for mains separation.

Check the power cord with mains plug for damage before every use. If the power cord is damaged, please arrange immediately for the exchange by an authorized customer service or a skilled electrician.

The plug and coupling of the extension cable used must be watertight.

Use the extension cord that has an adequate cross-section (see "Technical Data") and unwind it fully from the cable drum.

Unsuitable extension cables can be hazardous. Only use extension cables outdoors which have been approved for this purpose and labelled with a sufficient cable cross section:

For connection values, see type plate/technical data.

Water connection

Connection to the water supply

Warning

Observe regulations of water supplier. According to the applicable regulations, the appliance must never be used on the drinking water supply without a system separator. Use a suitable system separator manufactured by KÄRCHER; or, as an alternative, a system separator as per EN 12729 Type BA. Water



flowing through a system separator is considered non-drinkable.

For connection values refer to technical specifications

→ Connect the supply hose (minimum length 7.5 m, minimum diameter 1") to the water connection point of the appliance (such as the tap).

Note

The supply hose is not included.

→ Open the water supply.

Drawing in water from open reservoirs

→ Screw the suction hose (order no. 4.440-270.0) onto the water connection.

→ Attach the filter (order no. 4.730-012) to the suction hose.

→ Deaerate the appliance:
Unscrew the nozzle.

Switch on the appliance and let it run until the water exiting is bubble-free.

At the end let the appliance run for approx. 10 seconds - then switch off. Repeat the procedure for a couple of times.

→ Switch off the appliance and fit the nozzle again.

Operation

Danger

If the appliance is used in hazardous areas (e.g. filling stations) the corresponding safety provisions must be observed.

Warning

Clean engines only at places with corresponding oil separators (environmental safety).

The jet must not be directed at other persons or directed by the user at him/herself to clean clothing or footwear.

Wash animals only with a flat low pressure jet (see "Select spray type").

Risk of blocking. Place the nozzles in the accessory compartment with their joint pointing upward.

Only HD 9/19....

⚠ Danger

Long hours of using the appliance can cause circulation problems in the hands on account of vibrations.

It is not possible to specify a generally valid operation time, since this depends on several factors:

- Proneness to blood circulation deficiencies (cold, numb fingers).
- Low ambient temperature. Wear warm gloves to protect hands.
- A firm grip impedes blood circulation.
- Continuous operation is worse than an operation interrupted by pauses.

In case of regular, long-term operation of the device and in case of repeated occurrence of the symptoms (e.g. cold, numb fingers) please consult a physician.

High pressure operation

Note

The appliance is equipped with a pressure switch. The motor starts up only when the lever of the pistol is pulled.




- ➔ Roll off the high pressure hose totally from the hose drum.
- ➔ Set the appliance switch to "I".
- ➔ Unlock the hand-spray gun and pull the lever of the gun.
- ➔ Set working pressure and water quantity by turning (rungsless) at the pressure- and volume regulator (+/-) (not on HD 9/18 M).

Only on HD 9/20-4...:

For transporting small quantities, the engine heat ensures that water is heated up to approx. 15 °C.

Select spray type

- ➔ Close the hand spray gun.
- ➔ Turn the casing of the nozzle till the desired symbol matches the marking.

	High pressure circular spray (0°) for specially stubborn dirt
	Flat low pressure spray (CHEM) for operating using detergents or cleaning at low pressure.
	High pressure flat spray (25°) for large dirt areas

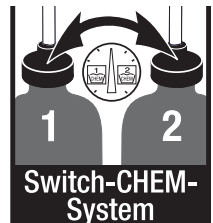
Operation with detergent

⚠ Warning

Unsuitable detergents can cause damage to the appliance and to the object to be cleaned. Use only those detergents that have been approved by Kärcher. Observe the dosage and other instructions provided with these detergents. For considerate treatment of the environment use detergent economically.

Kärcher detergents ensure smooth functioning. Please consult us or ask for our catalogue or our detergent information sheets.

- ➔ Place the detergent bottle into the bottle holder on the appliance or place a detergent container next to the appliance.. Two different detergents can be simultaneously placed into the appliance.
- ➔ Pull the detergent suction hose out and immerse it into the detergent bottle or container.
- ➔ Screw the lid onto the bottle or the container.
- ➔ Set nozzle to "CHEM".
- ➔ Set the detergent dosing valve to the desired detergent and concentration.



Recommended cleaning method

- Spray the detergent sparingly on the dry surface and allow it to react, but not to dry.
- Spray off loosened dirt with the high-pressure ray.
- After operations, dip the filter in clear water. Turn the dosing valve to the highest detergent concentration. Start the appliance and rinse for one minute.

Interrupting operation

- Release the lever of the hand-spray gun; the device will switch off.
- Release again the lever of the hand-spray gun; the device will switch on again.

Turn off the appliance.

- Set the appliance switch to "0".
- Disconnect the mains plug from the socket.
- Shut off water supply.
- Activate hand spray gun until device is pressure-less.
- Press the safety lever of the hand-spray gun to secure the lever of the pistol against being released accidentally.

Only on HD 9/20-4....:

Danger

Danger of scalding by means of hot water. The water remaining in the switched off device can get heated up. When you remove the hose from the water inlet, the heated water can spray out and cause scalding. Remove the hose only when the device has cooled down.

Transport

- Pull the device behind you at the handle for transporting it over longer distances.
- For devices without hose drum, push the handle downward to carry the appliance. To carry, hold the appliance at the handles and not at the pushing handle.

- Prior to transporting the appliance in horizontal position, remove the detergent bottles from the bottle holder and close them.

Storing the Appliance

- Insert the hand-spray gun in the holder.
- Wind up the high-pressure hose and hang it over the hose storage.
or
Wind up the high-pressure hose on the hose drum. Push in the handle of the crank to block the hose drum.
- Wind the connection cable around the cable holder.
- Fasten the plug with the mounted clip.

Frost protection

Warning

Frost will destroy the not completely water drained device.

Store the appliance in a frost free area.

If you cannot store it in a frost-free place:

- Drain water.
- Pump in conventional frost protection agents through the appliance.

Note

Use normal glycol-based anti-freezing agents for automobiles.

Observe handling instructions of the anti-freeze agent manufacturer.

- Operate device for max. 1 minute until the pump and conduits are empty.

Maintenance and care

Danger

First pull out the plug from the mains before carrying out any tasks on the machine.

Note

Please dispose off used oil only in the collection points provided for them. Please hand over old oil, if any, only at such places. Polluting the environment with used oil is a punishable offence.

Safety inspection/ maintenance contract

You can sign with your dealer a contract for regular safety inspection or even sign a maintenance contract. Please take advice on this matter.

Before each use

- Check connection cable for damages (risk of electrical shock); get the damaged connection cable replaced immediately by an authorised customer service person/ electrician.
- Check the high pressure hose for damages (risk of bursting).
Please arrange for the immediate exchange of a damaged high-pressure hose.
- Check appliance (pump) for leaks.
3 drops per minute are permitted and can come out from the lower side of the appliance. Call Customer Service if there is heavy leakage.

Weekly

- Check oil level Please contact Customer Service immediately if the oil is milky (water in oil).
- Clean the sieve in the water connection.
- Clean filter at the detergent suck hose.

monthly or after 500 operating hours

- Oil change.

Oil change

Note

See "Technical Details" for details of oil quantity and type.

- Unscrew the fastening screws of the device hood; remove the device hood.
- Remove the lid of the oil container.
- Tilt the appliance forward.
- Drain the oil in a collection basin.
- Fill in new oil slowly; air bubbles should go out.

- Attach the lid of the oil container.
- Fasten the device hood.

Troubleshooting

⚠ Danger

First pull out the plug from the mains before carrying out any tasks on the machine. Get the electrical components checked and repaired only by authorised customer service persons.

Contact an authorised customer service person in case of problems not mentioned in this chapter or if you are in doubt or when you have been explicitly asked to do so.

Appliance is not running

- Check connection cable for damages.
- Check the supply voltage.
- Call Customer Service in case of electrical defects.

Pressure does not build up in the appliance

- Set nozzle to "High pressure".
- Clean the nozzle.
- Replace the nozzle.
- Deaerate the appliance (see "Start-up")
- Check water supply level (refer to technical data).
- Clean the sieve in the water connection.
- Check all inlet pipes to the pump.
- Contact Customer Service if needed.

Pump leaky

3 drops per minute are permitted and can come out from the lower side of the appliance. Call Customer Service if there is heavy leakage.

- With stronger leak, have device checked by customer service.

Pump is vibrating

- Check suction pipes for water and detergent and ensure that they are leak-proof.
- Close dosing valve for detergent to operate the machine without detergent.

- Deaerate the appliance (see "Start-up")
- Contact Customer Service if needed.

Detergent is not getting sucked in

- Set nozzle to "CHEM".
- Check/ clean detergent suction hose with filter.
- Open or check/clean detergent dosing valve.
- Contact Customer Service if needed.

Spare parts

- Only use accessories and spare parts which have been approved by the manufacturer. The exclusive use of original accessories and original spare parts ensures that the appliance can be operated safely and troublefree.
- At the end of the operating instructions you will find a selected list of spare parts that are often required.
- For additional information about spare parts, please go to the Service section at www.kaercher.com.

Warranty

The warranty terms published by our competent sales company are applicable in each country. We will repair potential failures of your appliance within the warranty period free of charge, provided that such failure is caused by faulty material or defects in fabrication. In the event of a warranty claim please contact your dealer or the nearest authorized Customer Service center. Please submit the proof of purchase.

CE declaration

We hereby declare that the machine described below complies with the relevant basic safety and health requirements of the EU Directives, both in its basic design and construction as well as in the version put into circulation by us. This declaration shall cease to be valid if the machine is modified without our prior approval.

Product: High-pressure cleaner

Type: 1.524-xxx

Relevant EU Directives

98/37/EC

2006/95/EC

2004/108/EC

2000/14/EC

Applied harmonized standards

EN 60335-1

EN 60335-2-79

EN 55014-1: 2000 + A1: 2001 + A2: 2002

EN 55014-2: 1997 + A1: 2001

EN 61000-3-2: 2000 + A2: 2005

EN 61000-3-3: 2006

HD 6/16:

EN 61000-3-11: 2000

Applied conformity evaluation method


Appendix V

Sound power level dB(A)

	Measured:	Guaranteed:
HD 6/11-4	83	84
HD 6/13-4	83	84
HD 6/16-4	83	84
HD 7/10-4	83	84
HD 7/18-4	88	90
HD 9/19	89	91
HD 9/20-4	87	88

The undersigned act on behalf and under the power of attorney of the company management.


H. Jenner
CEO


S. Reiser
Head of Approbation

Alfred Kärcher GmbH Co. KG
Alfred Kärcher-Str. 28 - 40
D - 71364 Winnenden
Phone: +49 7195 14-0
Fax: +49 7195 14-2212

Technical specifications

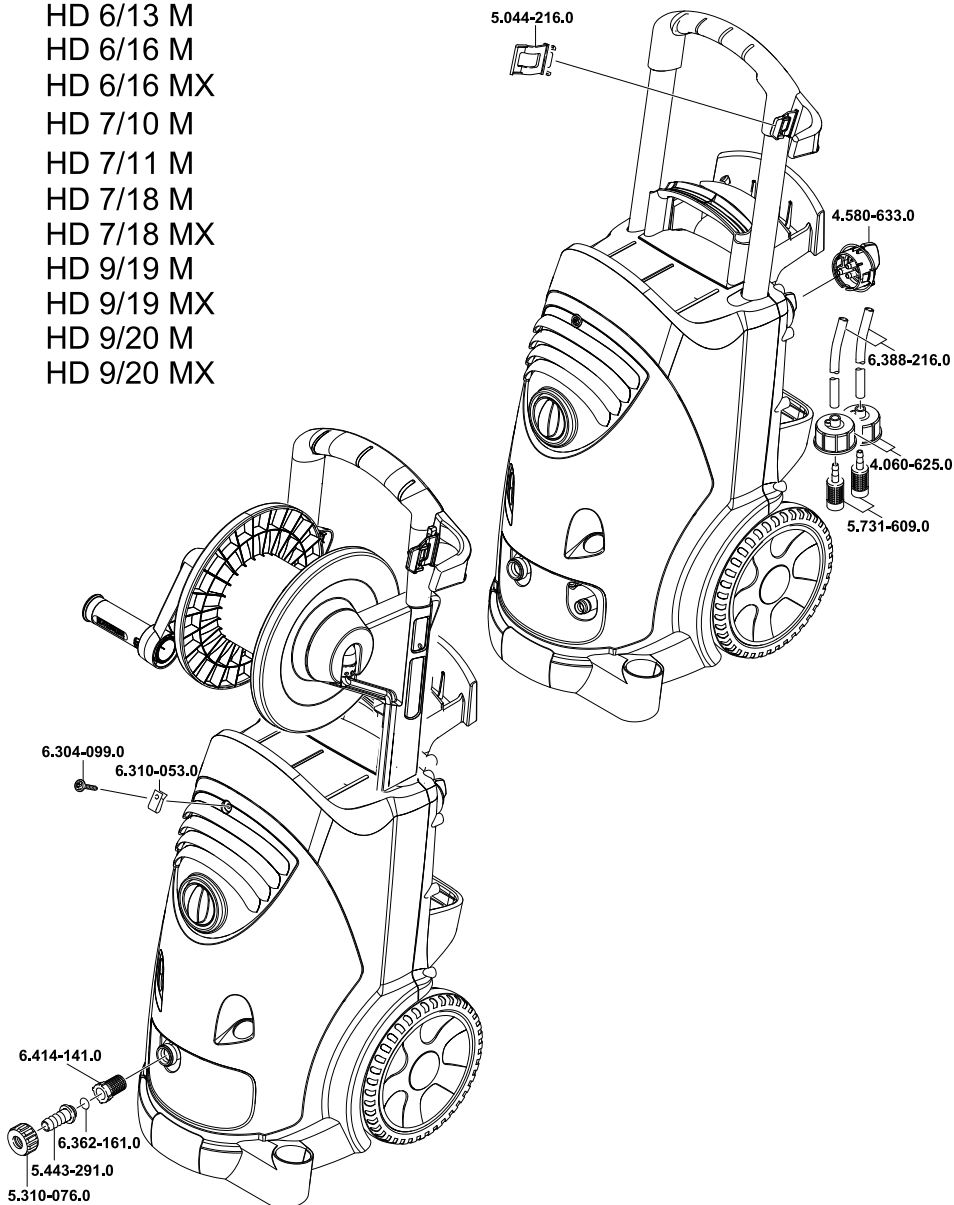
Type	HD 6/11-4 M 1.524-104.0		HD 6/16-4 M 1.524-100.0 1.524-107.0
		HD 6/15-4 MX 1.524-109.0	HD 6/16-4 MX 1.524-101.0 1.524-108.0
	GB	EU	AUS
Main Supply			
Voltage	V	100	240 230
Current type	Hz	1~ 50	
Motor rpm	1/min	1400	
Connected load	kW	2,9	3,3 3,4
Protection (slow, char. C))	A	30	16
Maximum allowed net impedance	Ohm	-	0,294+j0,184
Extension cord 30 m	mm ²	2,5	
Water connection			
Max. feed temperature	°C	60	
Min. feed volume	l/h (l/min)	600 (10)	
Suck height from open container (20 °C)	m	0,5	
Max. feed pressure	MPa	1	
Performance data			
Working pressure	MPa	3...11	3...15 3...16
Max. operating over-pressure	MPa	14	18 19
Flow rate	l/h (l/min)	250...600 (4,2...10)	300...600 (5...10)
Detergent suck in	l/h (l/min)	0...40 (0...0,7)	
Max. recoil force of hand spray gun	N	30	
Noise emission			
Sound pressure level (EN 60704-1)	dB(A)	69	
Guaranteed sound power level (2000/14/EC)	dB(A)	84	
Machine vibrations Vibration total value (ISO 5349)			
Hand spraygun	m/s ²	2,0	
Spray lance	m/s ²	1,9	
Fuel			
Amount of oil	l	0,5	
Oil grade		SAE 15W40	
Dimensions and weights			
Length	mm	554	
Width	mm	509	
Height	mm	1000	
Weight without accessories (MX)	kg	43 (45)	

Type		HD 7/12- 4 M 1.524- 105.0	HD 7/12- 4 M 1.524- 106.0	HD 7/16- 4 M 1.524- 204.0	HD 7/16- 4 M 1.524- 203.0
		KAP	KAP	KAP	KAP
Main Supply					
Voltage	V	220			
Current type	Hz	1~ 50	1~ 60	3~ 50	3~ 60
Motor rpm	1/min	1400			1680
Connected load	kW	2,4		2,1	4,1
Protection (slow, char. C))	A	16	20	16	
Maximum allowed net impedance	Ohm	-			
Extension cord 30 m	mm ²	2,5	4,0	2,5	
Water connection					
Max. feed temperature	°C	60			
Min. feed volume	l/h (l/min)	700 (11,7)			
Suck height from open container (20 °C)	m	0,5			
Max. feed pressure	MPa	1			
Performance data					
Working pressure	MPa	3...12		3...16	
Max. operating over-pressure	MPa	14		19	
Flow rate	l/h (l/min)	300...700 (5...11,7)			
Detergent suck in	l/h (l/min)	0...40 (0...0,7)			
Max. recoil force of hand spray gun	N	30		35	
Noise emission					
Sound pressure level (EN 60704-1)	dB(A)	69		75	
Guaranteed sound power level (2000/14/EC)	dB(A)	84		90	
Machine vibrations Vibration total value (ISO 5349)					
Hand spraygun	m/s ²	2,0		1,8	
Spray lance	m/s ²	1,9		2,0	
Fuel					
Amount of oil	l	0,5			
Oil grade		SAE 15W40		SAE 90 Hypoid	
Dimensions and weights					
Length	mm	554			
Width	mm	509			
Height	mm	1000			
Weight without accessories (MX)	kg	43 (45)			

Type		HD 7/18-4 M 1.524-200.0 1.524-208.0	HD 7/18-4 M 1.524-209.0	HD 9/18 M 1.524-303.0	HD9/19 M 1.524-300.0 1.524-308.0
		HD 7/18-4 MX 1.524-201.0 1.524-211.0	HD 7/18-4 MX 1.524-210.0		HD 9/19 MX 1.524-301.0 1.524-311.0
		EU	EU II	KAP	EU
Main Supply					
Voltage	V	400	230	220	400
Current type	Hz	3~ 50		3~ 60	3~ 50
Motor rpm	1/min	1400		3370	2800
Connected load	kW	4,7		6,7	6,8
Protection (slow, char. C))	A	16		20	16
Maximum allowed net impedance	Ohm	-			
Extension cord 30 m	mm ²	2,5		4,0	2,5
Water connection					
Max. feed temperature	°C	60			
Min. feed volume	l/h (l/min)	700 (11,7)		900 (15)	
Suck height from open container (20 °C)	m	0,5			
Max. feed pressure	MPa	1			
Performance data					
Working pressure	MPa	3...18		18,5	4...18,5
Max. operating over-pressure	MPa	21,5		22	
Flow rate	l/h (l/min)	300...700 (5...11,7)		890 (14,8)	450...890 (7,5...14,8)
Detergent suck in	l/h (l/min)	0...40 (0...0,7)			
Max. recoil force of hand spray gun	N	37		49	
Noise emission					
Sound pressure level (EN 60704-1)	dB(A)	75		76	
Guaranteed sound power level (2000/14/EC)	dB(A)	90		91	
Machine vibrations Vibration total value (ISO 5349)					
Hand spraygun	m/s ²	1,8		1,3	
Spray lance	m/s ²	2,0		3,0	
Fuel					
Amount of oil	l	0,5			
Oil grade		SAE 90 Hypoid			
Dimensions and weights					
Length	mm	554			
Width	mm	509			
Height	mm	1000			
Weight without accessories (MX)	kg	43 (45)			

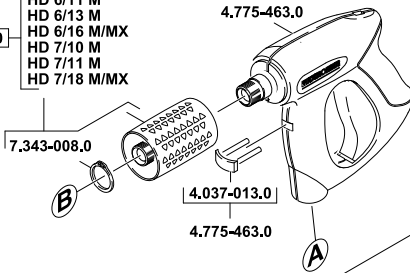
Type		HD 9/19 M 1.524-315.0	HD 9/20-4 M 1.524-401.0 1.524-403.0	HD 9/20-4 M 1.524-402.0
			HD 9/20-4 MX 1.524-404.0	
		EU II	EU	EU II
Main Supply				
Voltage	V	230	400	230
Current type	Hz	3~ 50		
Motor rpm	1/min	2800	1400	
Connected load	kW	6,8	6,9	
Protection (slow, char. C))	A	25	16	25
Maximum allowed net impedance	Ohm	-	0,222+j0,139	
Extension cord 30 m	mm ²	4,0	2,5	4,0
Water connection				
Max. feed temperature	°C	60		
Min. feed volume	l/h (l/min)	900 (15)		
Suck height from open container (20 °C)	m	0,5		
Max. feed pressure	MPa	1		
Performance data				
Working pressure	MPa	4...18,5	4...20	
Max. operating over-pressure	MPa	22		
Flow rate	l/h (l/min)	450...890 (7,5...14,8)	460...900 (7,7...15)	
Detergent suck in	l/h (l/min)	0...40 (0...0,7)		
Max. recoil force of hand spray gun	N	49		
Noise emission				
Sound pressure level (EN 60704-1)	dB(A)	76	75	
Guaranteed sound power level (2000/14/EC)	dB(A)	91	88	
Machine vibrations Vibration total value (ISO 5349)				
Hand spraygun	m/s ²	1,3	1,4	
Spray lance	m/s ²	3,0	1,5	
Fuel				
Amount of oil	l	0,5	0,75	
Oil grade		SAE 90 Hypoid		
Dimensions and weights				
Length	mm	554		
Width	mm	509		
Height	mm	1000		
Weight without accessories (MX)	kg	43 (45)	46 (48)	

HD 6/11 M
HD 6/13 M
HD 6/16 M
HD 6/16 MX
HD 7/10 M
HD 7/11 M
HD 7/18 M
HD 7/18 MX
HD 9/19 M
HD 9/19 MX
HD 9/20 M
HD 9/20 MX

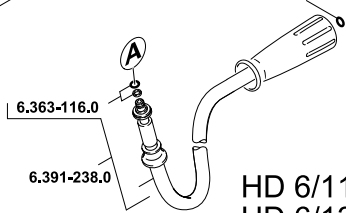


4.775-470.0 HD 9/19 M/MX
HD 9/20 M

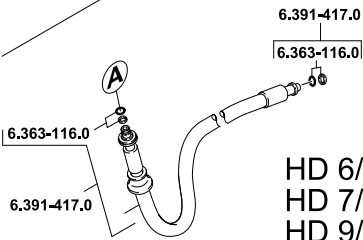
4.775-526.0 HD 6/11 M
HD 6/13 M
HD 6/16 M/MX
HD 7/10 M
HD 7/11 M
HD 7/18 M/MX



6.391-238.0
2.880-296.0



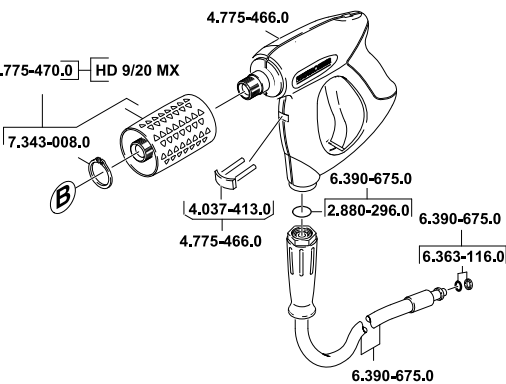
HD 6/11 M
HD 6/13 M
HD 6/16 M
HD 7/10 M
HD 7/11 M
HD 7/18 M
HD 9/19 M



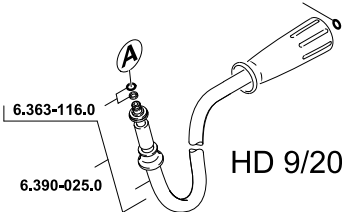
HD 6/16 MX
HD 7/18 MX
HD 9/19 MX

HD 9/20 MX

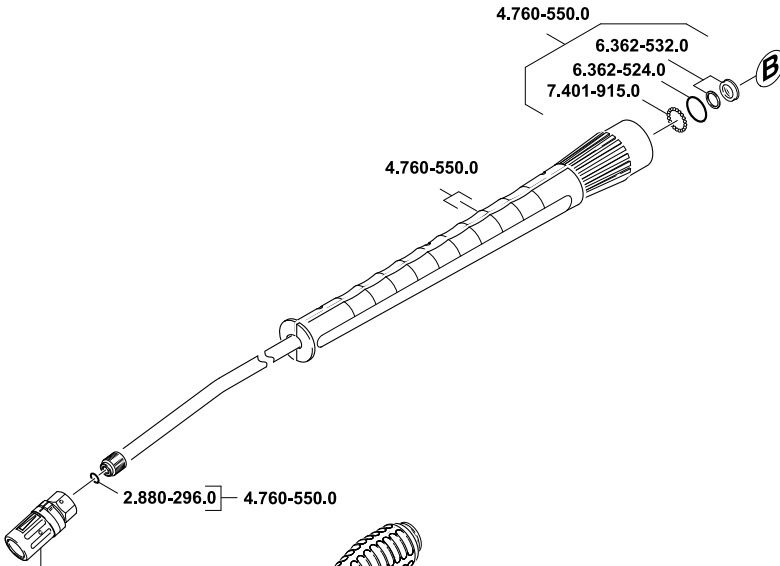
4.775-470.0 HD 9/20 MX



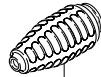
6.390-025.0
2.880-296.0



HD 9/20 M



- 4.763-163.0 HD 6/11
- 4.763-985.0 HD 6/13
- 4.763-133.0 HD 6/16
- 4.763-145.0 HD 7/10
- 4.763-107.0 HD 7/11 50 Hz
- 4.763-173.0 HD 7/11 60 Hz
- 4.763-164.0 HD 7/18
- 4.763-173.0 HD 9/19
- 4.763-105.0 HD 9/20



- 4.763-988.0 HD 6/11 PLUS
HD 6/13 PLUS
HD 7/18 PLUS
- 4.763-252.0 HD 6/16 PLUS
- 4.763-253.0 HD 9/20 PLUS
- 4.763-250.0 HD 7/10 PLUS

