

Handheld hydraulics – seeing is believing | Taste the real power

# HYDRAULICS



**One taste and you'll be hooked**

*Atlas Copco*

GET A TASTE FOR ATLAS COPCO'S HYDRAULIC HANDHELDS

# Love at first bite

Hydraulic tools should come with a warning: once you've tried them, you're going to want them.

Why? Because hydraulic tools pack a punch. They don't look that big and they are not that loud, but once you open the throttle and feel that bite, you will be convinced.



**Do you want portable tools that fit in the back of your van?**

**Do you want tools that give you low cost of ownership?**

**Do you need efficient and powerful tools for quick service jobs?**

**Do you want reliable tools that are practically maintenance free?**

If you answer yes to any of these questions, call your local rep for a demo. When it comes to hydraulics, seeing really is believing.



## Cutting ownership costs

Rental companies, utilities and other organizations appreciate hydraulics for a different reason: hydraulics cost less to purchase and less to service. In other words, they cut the cost of ownership.

**Costs less to purchase** The reason for this is simple: hydraulic systems are incredibly **efficient**. Take one example: a 9 hp hydraulic power pack delivers about the same power at the tip of a tool as a 20 hp diesel engine in a compressor. In fact, for the price of one compressor and breaker, you can buy two complete hydraulic power pack/breaker packages.

**Costs less to service** Hydraulics require minimum service. This is due to the fact that the tools are always running in the oil that power them, so there is **very little wear**. In addition, there aren't many parts in a hydraulic power pack, which makes servicing **fast and easy**.

Good lubrication, low wear and few parts all add up to long service lifetime.

## Power to-go

This incredible power is **very portable**. You don't need electricity, and a hydraulic power pack is so light and **compact** that you can get it in the back of a van. In other words, Atlas Copco handheld hydraulic tools help you get more done, in less time.



## Cutting **day-to-day costs** for users

For the user, hydraulics reduce both fuel consumption and transportation costs. That's because hydraulics are so **efficient** and thus compact.

For example, a 9 hp power pack uses significantly less fuel than a 20 hp multi-cylinder diesel compressor.

You won't need a trailer to transport a hydraulic power pack: it's so light that operators can load and unload it by themselves. And it's so small, that you can transport it in the back of a station wagon or small van.

## Choose the **power source** that suits your fancy

Many times, you won't even need a power pack at all. That's because hydraulic tools can be connected to a range of **different power sources** such as excavators, trucks, skid-steers and tractors.

So, hydraulics are great for those **quick one-day jobs**: fencing, opening up paving for cables or piping. With hydraulics, you get this incredible power wherever you want it, whenever you want it.

## Easy to own

**Reliability** is built in when it comes to hydraulic tools: there's not much that can go wrong. With just one or two moving parts, there's minimal wear and very few parts to replace. Hydraulics are by nature reliable: **working in a closed loop**, dirt and moisture are kept out. And due to the no-spill, flat-face couplings, it's easy to keep the system clean.

Hoses are fitted with high quality couplings. They comply with HTMA (Hydraulic Tool Manufacturers' Association) standards and give easy, **fast and safe connections** even in applications in which there are high concentrations of dust and dirt such as heavy industry and mining.



## Operator comfort

Operators like to work with Atlas Copco hydraulic tools. They offer lower vibrations than many other tools available on the market. Due to the fact that hydraulic tools don't eject any exhaust air, noise levels are kept down, helping to provide a better working environment.



A NEW RANGE OF VIBRO-REDUCED BREAKERS

# A further step in vibration reduction



Atlas Copco have been at the forefront in developing **vibration-dampening technology** for decades. Our new range of vibro-reduced breakers – **LH 190 E, LH 230 E, LH 280 E & LH 400 E** – reduce the vibrations transmitted to operators' hands and arms still further, compared to previous versions. This has been achieved with the help of **a new handle** with a pivot pin. Operators who have tested the new breakers report noticeably better dampening.

## Massive power with a smooth taste

The new design enables a lower vibration exposure level for the operator to be achieved at a given working time.

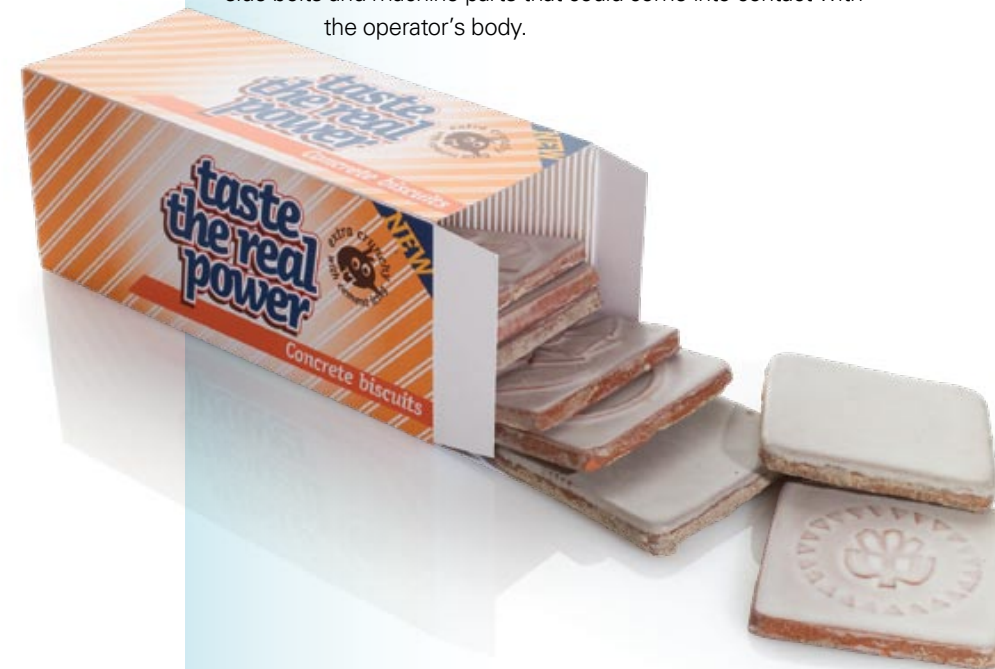
Better vibro-reduction means **less fatigue** for the operator, which in turn means **better productivity**. And yet despite their smoother feel, the new breakers hit as hard as the previous models. These are smoothies with a bite!

# A selection of crackers

Atlas Copco hydraulic breakers are available in two versions. The E version breakers have the same sting as the standard models, but with lower levels of vibration.

## Designed to boost productivity

The **slim design** gives operators a clear line of sight to the point of the working tool in order to keep productivity high. And **productivity** is given an extra boost thanks to the **well-balanced** design and also because of the elimination of external side bolts and machine parts that could come into contact with the operator's body.



## A COMPLETE LINE OF T-HANDLE BREAKERS

### LH 11

This **D-handle hammer** is ideal for horizontal work in brick, mortar and light concrete. It is one of the most powerful pick hammers on the market. With its detachable front handle, the LH 11 is a popular choice for renovation, demolition and structural alteration jobs.

### LH 180/190 E

**Lightweight, multi-purpose breakers** These highly productive tools are used to break brickwork, frozen soil, asphalt, concrete, as well as for tamping and compaction. The breakers are popular with contractors and rentals for indoor and outdoor renovation and demolition jobs, and are the preferred choice for major railroad companies in tie tamping applications.

### LH 220/230 E

**Medium weight, multi-purpose breakers** The LH220/230 E are among the best general purpose breakers available in the 23-28 kg range. They are commonly used with 5" asphalt chisels for road building and maintenance applications, but also work well in brickwork, frozen soil and concrete.

### LH 270/280 E

**Heavy-duty, multi-purpose breakers** These powerful, high productivity breakers provide heavy-duty breaking in frozen soil, asphalt and reinforced concrete and are considered to be among the best in their class.

### LH 390/400 E

**Super heavy-duty breakers** The LH 390 and LH 400 E are probably the most powerful handheld breakers in the world. They are used for the most demanding jobs in heavy asphalt, reinforced concrete and foundations.

Hammers and breakers		LH 11	LH 180	LH 190 E	LH 220	LH 230 E	LH 270	LH 280 E	LH 390	LH 400 E
Weight <sup>1)</sup>	kg	12,6	17,5	22	22	26,5	25	29,5	31,5	36
Lenght <sup>1)</sup>	mm	600	650	650	736	736	765	765	765	765
Oil flow	l/min	20	20	20	20-30	20-30	20-30	20-30	30-40	30-40
Working pressure	bar	90	115	115	125	125	125	125	125	125
Return line pressure max	bar	10	10	10	15	15	15	15	15	15
Impact rate	bpm	2400	1600	1600	1500-1950	1500-1950	1400-1850	1400-1850	1100-1350	1100-1350
Vibration level 3 axes (ISO 20643) <sup>2)3)</sup>	m/sec <sup>2</sup>	16,5	15,1	5	16,6	4,6	19,4	4,6	20,1	5,4
Sound power level guaranteed (2000/14/EC) <sup>3)</sup>	Lw	105	106	106	107	107	109	109	106	106
Sound pressure level (ISO 11203) <sup>3)</sup>	Lp, r=1m	93	93	93	94	94	95	95	93	93
EHTMA class		C	C	C	C/D	C/D	C/D	C/D	D/E	D/E

Part no	LH 11	LH 180	LH 190 E	LH 220	LH 230 E	LH 270	LH 280 E	LH 390	LH 400 E
Hex 22x82,5	1801 1741 18	-	-	-	-	-	-	-	-
Hex 25x108	-	1801 3443 36	1801 3443 41	1801 3543 46	1801 3543 51	-	-	-	-
Hex 28x152	-	1801 3443 37	1801 3443 42	1801 3543 47	1801 3543 52	1801 3643 56	1801 3643 60	1801 3743 64	1801 3743 68
Hex 28x160	-	1801 3443 38	1801 3443 43	1801 3543 48	1801 3543 53	1801 3643 57	1801 3643 61	1801 3743 65	1801 3743 69
Hex 32x152	-	1801 3443 39	1801 3443 44	1801 3543 49	1801 3543 54	1801 3643 58	1801 3643 62	1801 3743 66	1801 3743 70
Hex 32x160	-	1801 3443 40	1801 3443 45	1801 3543 50	1801 3543 55	1801 3643 59	1801 3643 63	1801 3743 67	1801 3743 71

<sup>1)</sup> LH 180/190 E with Hex 25, LH 220/230 E, LH 270/280 E and LH 390/400 E with Hex 32.

<sup>2)</sup> LH 11-LH 280 E measured at 20l/min, LH 390/400 E measured at 30 l/min

<sup>3)</sup> **Important:** Full details of measurement are available in the Safety and Operating Instruction of the product (part no 3392 5206 90). It can be found on [www.acprintshop.com](http://www.acprintshop.com)

YOU CHOOSE: PETROL-, DIESEL- OR ELECTRIC-DRIVEN POWER PACKS

# A small package to boost your power

## Foldable handles

One person can move power packs around site with ease.

## On/off valve

The variable flow on/off valve allows for easy tool change and slow start-up.

## Filter indicator

All power packs feature a large, easy-to-read filter gauge that indicates when it's time to change the filter.



## Light, compact and portable – perfect for a quick snack

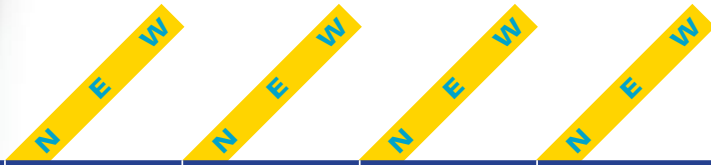
These well-proven power packs are the ideal power source for a wide range of applications in the 20-40 lpm/170 bar range. Light and compact, they are **easy to store** and transport. Equipped with wheels and handles, they are easy to move around construction sites.

## Reduces fuel consumption and noise – uses less juice

Many of the power packs are equipped with **Power On Demand** (POD). This hydraulic regulatory system automatically idles the engine when the tool is not being used, and then speeds it up when the tool is re-activated.

## Efficient cooling – always served at the right temperature

The thermostatically-controlled oil cooler allows quick warm-ups and helps protect the hydraulic oil from overheating. Correct working temperature is achieved within minutes – even during the winter.



<sup>1)</sup> Not sold within EU

<sup>2)</sup> Extension twin-hose comes as standard with LP 9-20 P and LP 13-30 P

<sup>3)</sup> **Important:** Full details of measurement are available in the Safety and Operating Instruction of the product. It can be found on [www.acprintshop.com](http://www.acprintshop.com)

Power packs		LP 9-20 P <sup>2)</sup>	LP 9-20 E	LP 13-20 DEL	LP 13-30 P <sup>2)</sup>	LP 18-30 PE	LP 18-30 E	LP 18-40 PE	LP 18-40 E	LP 18 Twin E	LP 18 Twin PE
Engine		9 HP Honda petrol	5.5 kW / 3x400 V / 16A Electric	10 HP Lombardini diesel	13 HP Honda petrol	18 HP B&S Vanguard petrol	11 kW / 3x400 V / 32A Electric	18 HP B&S Vanguard petrol	11 kW / 3x400 V / 32A Electric	11 kW / 3x400 V / 32A Electric	18 HP B&S Vanguard petrol
Weight (incl oil)	kg	66	70	116	94	118	130	118	130	123	110
Dimensions (LxWxH)	mm	585x525x680	585x525x680	705x600x745	705x600x745	790x605x690	815x605x690	790x605x690	815x605x690	705x600x745	720x700x745
Oil flow	l/min	20	20	20	20-30	20-30	30	20-40	40	2x20/1x40	2x20/1x40
Maximum pressure	bar	150	140	140	155	170	172	145	150	155	155
Fuel capacity	l	6	-	5,5	6,5	7,2	-	7,2	-	-	7,2
Hose included		YES	NO	NO	YES	NO	NO	NO	NO	NO	NO
Power on Demand (POD)		YES	NO	NO	YES	NO	NO	NO	NO	NO	YES
Oil control: engine oil		YES	NO	NO	YES	YES	NO	YES	NO	NO	YES
Electric start		NO	YES	YES	NO	YES	YES	YES	YES	YES	YES
Sound power level guaranteed (2000/14/EC) <sup>3)</sup>	L <sub>w</sub> , dB(A)	101	101	-	101	101	101	101	101	101	101
Sound pressure level (ISO 11203) <sup>3)</sup>	L <sub>p</sub> , r=1m	88	79	-	89	99	86	99	86	86	88
EHTMA class		C	C	C	C/D	C/D	D	C/D/E	E	C/E	C/E
Part number		1807 0080 09	1807 0080 15	-	1807 0110 12	1807 0160 41	1807 0160 43	1807 0160 38	1807 0160 42	1807 0160 22	1807 0160 16
<b>Non-silenced versions</b>											
Part number <sup>1)</sup>		1807 0080 31	-	1807 0110 20	1807 0110 23	-	-	1807 0160 40	-	-	1807 0160 32

## POWERFUL HYDRAULIC UTENSILS

### Cut-off saw

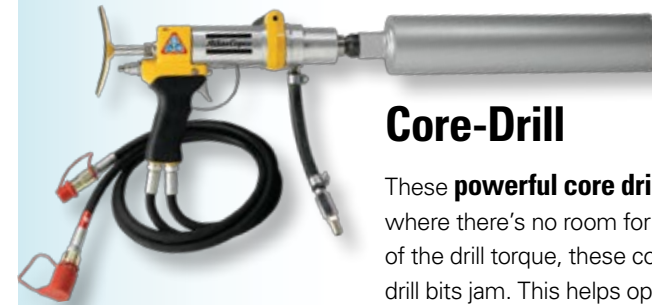
These **powerful, light and compact saws** make a quick job of cutting concrete, asphalt and steel. Their simple hydraulic design with direct drive provides **high productivity**, while reducing maintenance, especially in comparison with belt-driven saws.

The **compact, slim design** and open cutting face give you a good overview of the work. With the help of a lightweight cart you can use the saws for floor, road and other light surface jobs.



Cut-off saws		LS 14	LS 16
Weight	kg	9,8	10,6
Oil flow	l/min	20-30	20-40
Max oil pressure	bar	170	170
Revolutions	rpm	2500-4000	2000-4000
Speed	m/s	46-75	42-85
Disc size	mm	355	405
Arbor size	mm	25,4	25,4
Cutting depth	mm	133	160
Vibration level 3 axes (ISO 20643) <sup>1)</sup>	m/sec <sup>2</sup>	4,9	4,9
Sound power level guaranteed (2000/14/EC) <sup>1)</sup>	L <sub>w</sub>	99	115
Sound pressure level (ISO 11203) <sup>1)</sup>	L <sub>p</sub> , r=1m	86	102
EHTMA class		C/D	C/D/E
Part number		1809 0140 01	1809 0160 00

<sup>1)</sup> **Important:** Full details of measurement are available in the Safety and Operating Instruction of the product (part no 3392 5042 90). It can be found on [www.acprintshop.com](http://www.acprintshop.com)



### Core-Drill

These **powerful core drills** are ideal for all hand-drilling jobs and where there's no room for drill stands. Due to the hydraulic control of the drill torque, these core drills give **very low kickback** should drill bits jam. This helps operators maintain control, even when working on holes of 200 mm in diameter and above.

They are used by professionals in a wide range of applications including building renovation and utility works. They are relied on to install drainage, sewer and water pipes, plus cable and ventilation ducts where large and deep holes are needed.

The core drills offer **spark-free operation** – since there are no electrical components – and so can be used inside buildings and even underwater. With a standard round, 60 mm front-end, you can use Atlas Copco core drills with the majority of commonly available drill stands. The drills come with a steel carrying case which simplifies handling, transport and storage.



Core drills		LCD 500	LCD 1500
Weight	kg	8,2	8,2
Oil flow rate	l/min	20-30	20-30
Length without drill	mm	414	406
Working pressure	bar	80-172	80-172
Revolutions	rpm	600-900	1500-2250
Drill diameter	mm	50-202	12-75
Thread female (drive) <sup>1)</sup>		½" BSP	½" BSP
Vibration level 3 axes (ISO 20643) <sup>2)</sup>	m/sec <sup>2</sup>	3,1	2,7
Sound pressure level (ISO 11203) <sup>2)</sup>	L <sub>p</sub> , r=1m	<70	<70
EHTMA class		C/D	C/D
Part number		1806 1014 38	1806 1014 39

<sup>1)</sup> 1/2" BSP male x 1 1/4 UNC male drive adaptor included for use of larger diameter core bits.

<sup>2)</sup> **Important:** Full details of measurement are available in the Safety and Operating Instruction of the product (part no 3392 5189 90). It can be found on [www.acprintshop.com](http://www.acprintshop.com)

## Submersible hydraulic pump

Atlas Copco **submersible hydraulic pumps** are light, compact and extremely efficient. They are used in a wide range of applications including continuous pumping of clean or contaminated water on building sites, in flooded excavations and cellars.

The pumps are driven by a **build-in hydraulic motor** featuring a special drive shaft, seal and bearings. They are cooled and lubricated by the hydraulic oil and can therefore be left to run dry without damage.

The pumps offer impressive performance considering their size and weight, providing heads of 25 and 32 metres and output of 840 and 1,920 l/min.

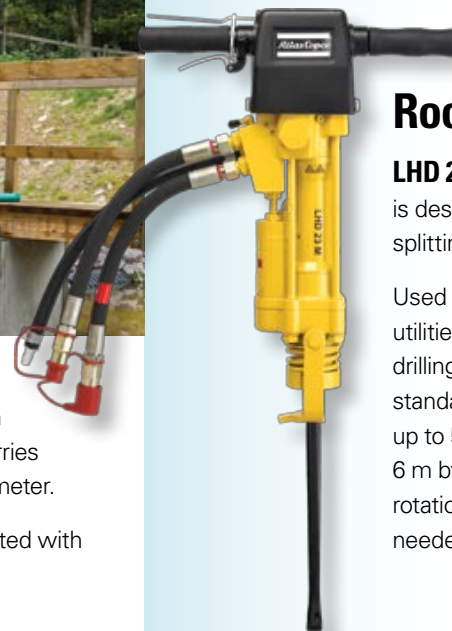
The **2-inch pump** handles small stones and debris of up to 10 mm and is an ideal all-round pump for municipalities, water and waste utilities and rescue services. It is also widely used in general construction and road services/ maintenance work.

Water pumps		LWP 2	LTP 3
Weight	kg	10,25	12,7
Dimensions HxW	mm	267x215	360x300
Oil flow	l/min	18-24	26-38
Working pressure	bar	100	140
Max working Pressure	bar	160	172
Pump head max	m	25	32
Pump flow max	l/min	840	1920
Discharge		2"	3"
Solids handling up to	mm	10	60
EHTMA class		C	D
Part number		1806 1014 34	1806 1014 35



The **3-inch submersible trash pump** can be used in similar applications, but can also handle muds and slurries containing stones and particles of up to 60 mm in diameter.

Both pumps come with a 10-metre discharge hose fitted with quick-release couplings for easy handling.



## Rock-Drill

**LHD 23 M rock drill** This lightweight tool is designed for drilling blast, anchor and rock-splitting holes.

Used for example by contractors, armies and utilities who want convenient and efficient drilling without large compressors. With standard integral steel, it drills diameters of up to 50 mm and depths down to approx. 6 m by using hydraulic power for impact and rotation. A small additional compressor is needed for flushing.

Rock drill		LHD 23 M
Shank size	Hex mm	22x108
Weight without hoses and drill	kg	24,5
Service weight	kg	28,3
Oil flow	l/min	20-25
Working pressure	bar	100-140
Return line pressure max	bar	15
Impact rate	blows/min	2400-3000
Revolutions	rpm	320-400
Torque	Nm	65
Vibration level 3 axes (ISO 20643) <sup>1)</sup>	m/sec <sup>2</sup>	11,7
Sound power level guaranteed (2000/14/EC) <sup>1)</sup>	Lw	115
Sound pressure level (ISO 11203) <sup>1)</sup>	Lp, r=1m	104
EHTMA class		C
Part number, clockwise rotation		1801 3800 01
Part number, CCW rotation		1801 3800 02

<sup>1)</sup> **Important:** Full details of measurement are available in the Safety and Operating Instruction of the product (part no 3392 5013 01). It can be found on [www.acprintshop.com](http://www.acprintshop.com)

## HOW TO DEAL WITH POSTS

### Post Driver

Used for driving in road barrier tubes, profiles, signposts, fences and a wide range of anchors, the post drivers provide **stable, powerful, high speed driving** for a variety of post sizes. When operated with an optional hose-mounted remote-controlled valve, the drivers can be run with both open- or closed-centre systems.

**The LPD-T** comes with a standard 0.5 m quick-release coupler tail hose and has a build-in start/stop trigger that the operator activates directly on the driver.

**The LPD-RV** is supplied with 2-m long tail hose and features a remote on/off valve that allows the operator to activate the driver even when it is placed on top of tall posts.



Post drivers		LPD-T	LPD-RV
Activation type		By trigger lever	By remote valve
Hydraulic system		Open centre	Open- or closed-centre
Weight	kg	30,6	28,8
Weight with hoses and adaptor	kg	34	32
Max working pressure	bar	140	140
Oil flow	l/min	20-30	20-30
Impact rate at 30 l/min	blows/min	1500	1500
Hydraulic ports		½" BSP	½" BSP
Vibration level 3 axes (ISO 20643) <sup>1)</sup>	m/sec <sup>2</sup>	12,8	12,8
Sound power level guaranteed (2000/14/EC) <sup>1)</sup>	Lw	113	113
Sound pressure level (ISO 11203) <sup>1)</sup>	Lp, r=1m	102	102
EHTMA class		C/D	C/D
Part number		1801 4040 00	1801 4050 00

<sup>1)</sup> **Important:** Full details of measurement are available in the Safety and Operating Instruction of the product (part no 3392 5036 01). It can be found on [www.acprintshop.com](http://www.acprintshop.com)



### Post puller

The Atlas Copco post puller is used by road-maintenance contractors **to remove damaged crash barriers and road signs**. With hardened jaws and an automatic chain-tightening clamp, this post puller is ideal for removing all kinds of wooden or steel posts including IPE, HPE, UPE profiles and round/square steel tubes.

This post puller develops 6 tons of hydraulic pulling force. With the help of a separate hand lever (optional), you can boost the pulling force by an extra 4 tons to loosen any poles that are fixed into place with ease. Weighing just 60 kg, it is the **most compact and portable pulling device** on the market – perfect for on-site road repairs that cannot be accessed by heavy vehicles with a 10-ton crane.



Post puller		LPP 10 HD
Weight	kg	60
Oil flow	l/min	18-38
Max working pressure	bar	160
Max back pressure	bar	30
Lift capacity per stroke	mm	12-200
Pulling force	kg	6000
Full pulling force	kg	10000
EHTMA class		C/D
Part number <sup>1)</sup>		1801 8100 03

<sup>1)</sup> Not sold within EU



## Ground rod driver

**Well-balanced, powerful and easy to use**, these tools will drive ground rods into hard or stony ground to the required depth. They come with a remote-control operating valve mounted on the 2-m long tail hose. Ideal for driving long rods, they make it easy to achieve the target depth.

The **LGRD-RV 16** accepts rods of up to 16 mm and the **LGRD-RV 25** rods up to 25 mm. The long bushing ensures that the direction of the ground rod is guided and perfectly controlled. Equipped with a lifting eye, the driver can be raised with a hoist.

Ground rod drivers		LGRD-RV 16	LGRD-RV 25
Weight, power unit	kg	20,5	20,5
Weight with hoses, control valve	kg	24	24
Max working pressure	bar	105-125	105-125
Oil flow	l/min	20-30	20-30
Impact rate at 30 l/min	blows/min	1740	1740
Hydraulic ports		½" BSP	½" BSP
Bushing diameter	mm	16	25
Vibration level 3 axes (ISO 20643) <sup>1)</sup>	m/sec <sup>2</sup>	17,4	17,4
Sound power level guaranteed (2000/14/EC) <sup>1)</sup>	L <sub>w</sub>	110	110
Sound pressure level (ISO 11203) <sup>1)</sup>	L <sub>p</sub> , r=1m	99	99
EHTMA class		C/D	C/D
Part number		1801 3940 01	1801 3940 00

<sup>1)</sup> **Important:** Full details of measurement are available in the Safety and Operating Instruction of the product (part no 3392 5007 01). It can be found on [www.acprintshop.com](http://www.acprintshop.com)

## Handheld post hole borer

**Compact and powerful**, this tool drills holes in hard soil and sand of up to 1.3 m in depth and 90-350 mm in diameter. It offers reversible rotation and is designed for two-person operation. All augers have interchangeable bits for **increased service lifetime** (see accessories catalogue). The auger is ideal for fencing and tree planting. Featuring two-way operation and with adjustable torque settings, the tool can also be used to open and close main water line valves, for example, with the help of special adaptors.



Handheld post hole borer		LPHB
Weight without auger	kg	20
Oil flow	l/min	15-30
Working pressure	bar	100-140
Max back pressure	bar	50
Torque	Nm	315
Speed of rotation	rpm	90-188
Auger size at L=870	mm	90-350
Vibration level 3 axes (ISO 20643) <sup>1)</sup>	m/sec <sup>2</sup>	7,4
Sound pressure level (ISO 11203) <sup>1)</sup>	L <sub>p</sub> , r=1m	<70
EHTMA class		C/D
Part number		1806 1014 33

<sup>1)</sup> **Important:** Full details of measurement are available in the Safety and Operating Instruction of the product (part no 3392 5115 01). It can be found on [www.acprintshop.com](http://www.acprintshop.com)



A FULL RANGE OF ACCESSORIES

# Candies to keep your tools **chewing**



## Power Pack BIO-OIL

Each power pack comes with two 4-litre bottles of Atlas Copco biodegradable oil, enough for filling the power pack and a 7-metre hose.

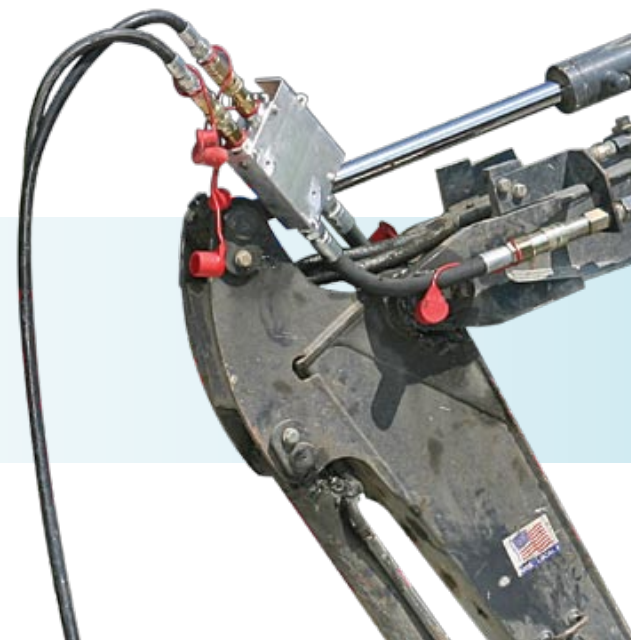
## Oil-flow divider

The oil-flow divider allows you to run tools from hydraulic-powered carriers by reducing flow and pressure. An extension hose is required to connect the divider to the tool.

## Extension hoses

By adding one or two 7-m extension hoses you can use up to 21 m of hose with no significant drop in pressure. The hoses are light and flexible and are fitted with flat-face, quick-release couplings. (A 7 m extension hose comes as standard with LP 9-20 P and LP 13-30 P).

More accessories can be found in the Consumables catalogue available on [www.acprintshop.com](http://www.acprintshop.com)



**Atlas Copco**

[www.atlascopco.com](http://www.atlascopco.com)