



HD 830 BS

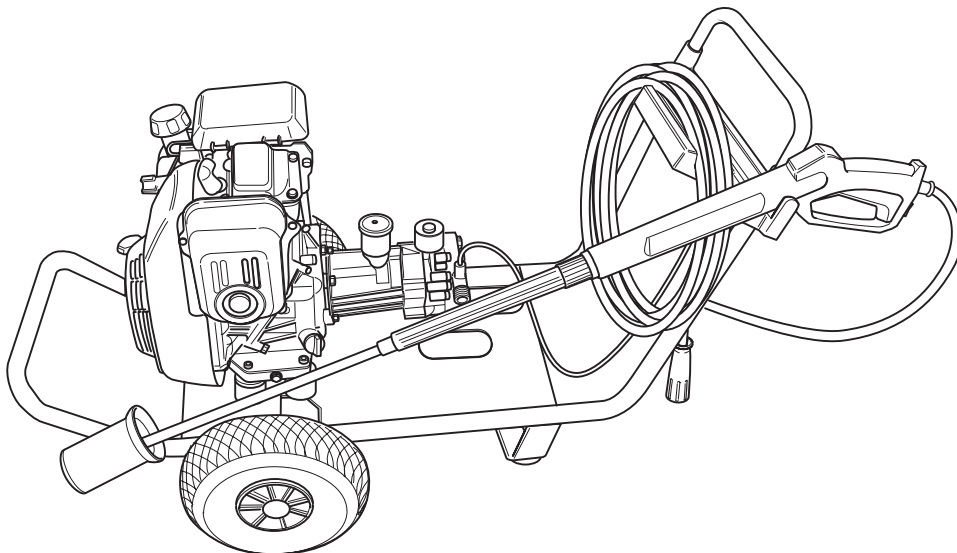
New Unit Information

International Service Information

dated 14 September 2001

HD 830 BS

1.187-...





HD 830 BS

New Unit Information

International Service Information

dated 14 September 2001

The high-pressure cleaner HD 830 BS is the successor of HD 830 B, but with lower performance capability.

Drive system

- Motor type Honda GC 160, 1-cylinder, 4-stroke
- Air-cooled
- Recoil hand starter
- No oil level sensor
- Engine keeps running with increased r.p.m. when handgun is closed (circulation operation).
- Manual speed regulation at engine

High-pressure pump

- 3-piston axial pump
- Piston made of stainless steel (diameter: 12 mm)
- High-pressure seal
- Oil seal
- Cylinder head made of brass
- Suction and pressure valves made of plastics
- Swash plate with axial ball bearing
- Overflow valve is also the safety valve.
- Thermo valve at cylinder head for protection of the high-pressure pump during circulation operation.

Cleaning agent system

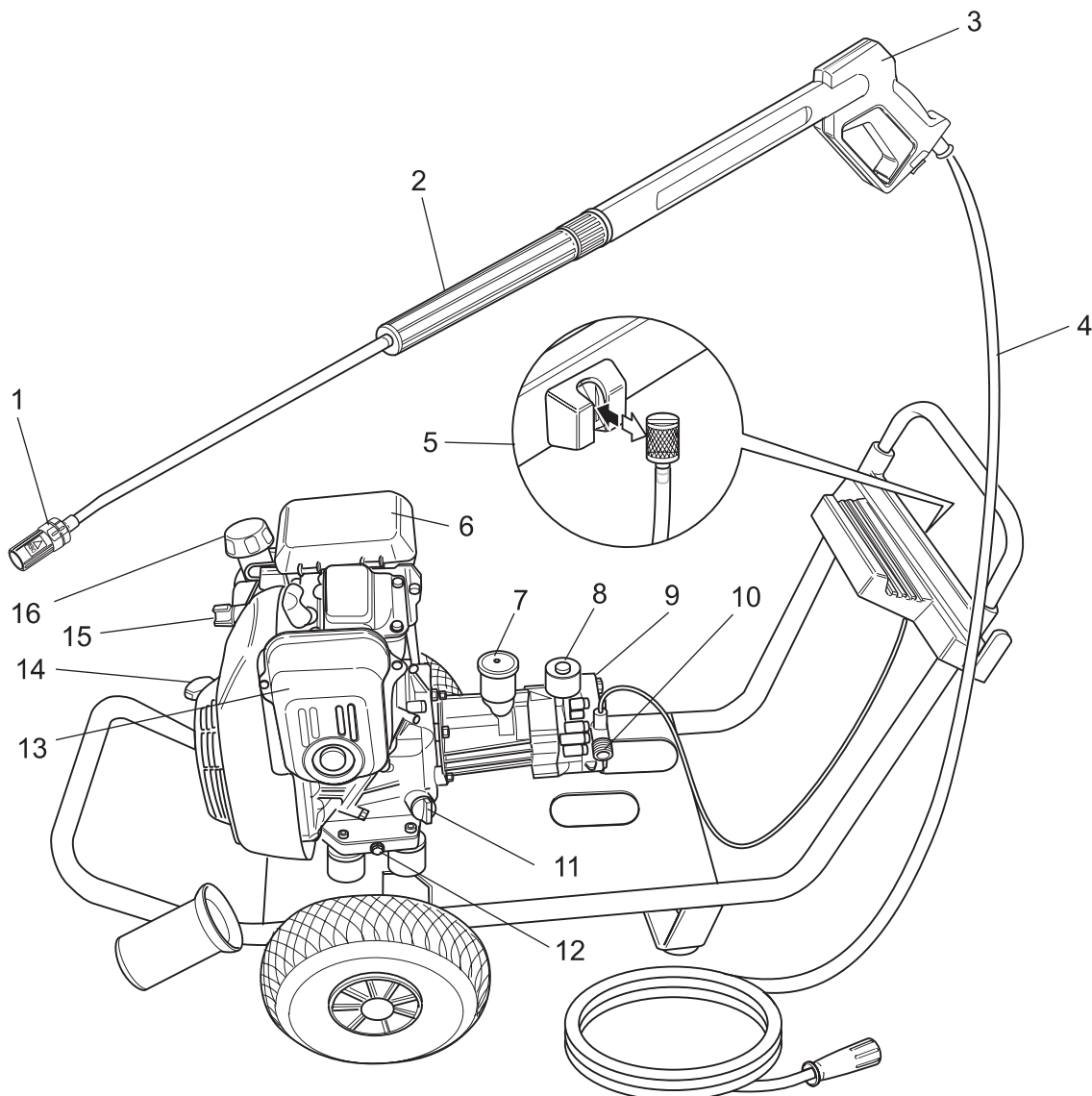
- Cleaning agent suction in low-pressure operation (injector)
- Non-return valve at cylinder head
- Cleaning agent suction hose with filter and metering valve

Standard accessory

- Handgun without servopress
- Spray lance with 3-way nozzle
- Handgun with soft grip
- Swivel spray lance with 3-way nozzle (0°, 25°, 40°)

**HD 830 BS****New Unit Information****International Service Information**

dated 14 September 2001

Equipment Features

- | | | | |
|---|--|----|---------------------------------------|
| 1 | 3-way nozzle | 9 | Water connection |
| 2 | Spray lance | 10 | High-pressure connection |
| 3 | Handgun | 11 | Engine oil filling hole with dipstick |
| 4 | High-pressure hose | 12 | Engine oil drain plug |
| 5 | Cleaning agent suction hose with filter and metering valve | 13 | Muffler |
| 6 | Air filter | 14 | Recoil hand starter |
| 7 | Pump oil tank | 15 | Throttle lever |
| 8 | Thermo valve | 16 | Fuel tank inlet |



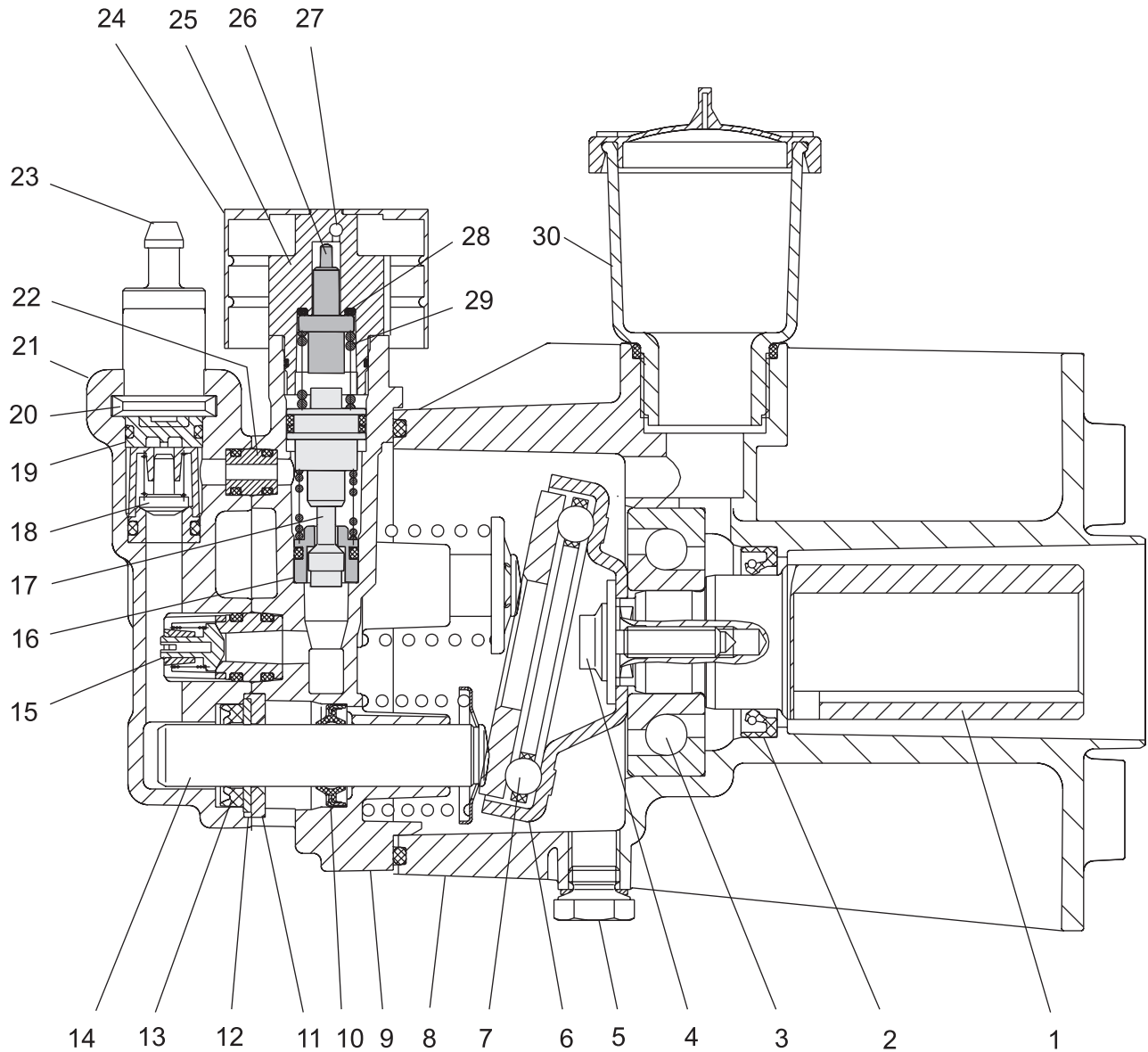
HD 830 BS

New Unit Information

International Service Information

dated 14 September 2001

Technical Features : Pump





HD 830 BS

New Unit Information

International Service Information

dated 14 September 2001

Technical Features : Pump

- 1 Swash plate drive shaft
- 2 Shaft seal
- 3 Drive shaft ball bearing
- 4 Swash plate fastening screw
- 5 Oil drain plug
- 6 Swash plate
- 7 Axial ball bearing
- 8 Pump housing
- 9 Piston guide housing
- 10 Oil seal
- 11 Ring
- 12 Disc
- 13 High-pressure hose
- 14 Piston
- 15 Suction valve
- 16 Overflow valve seat
- 17 Overflow valve pin
- 18 Pressure valve
- 19 Threaded plug
- 20 Retaining plate
- 21 Cylinder head
- 22 Connecting sleeve
- 23 Cleaning agent connection
- 24 Protection cap
- 25 Valve housing
- 26 Thermo valve
- 27 Drain bore
- 28 O-ring
- 29 Spring
- 30 Oil tank

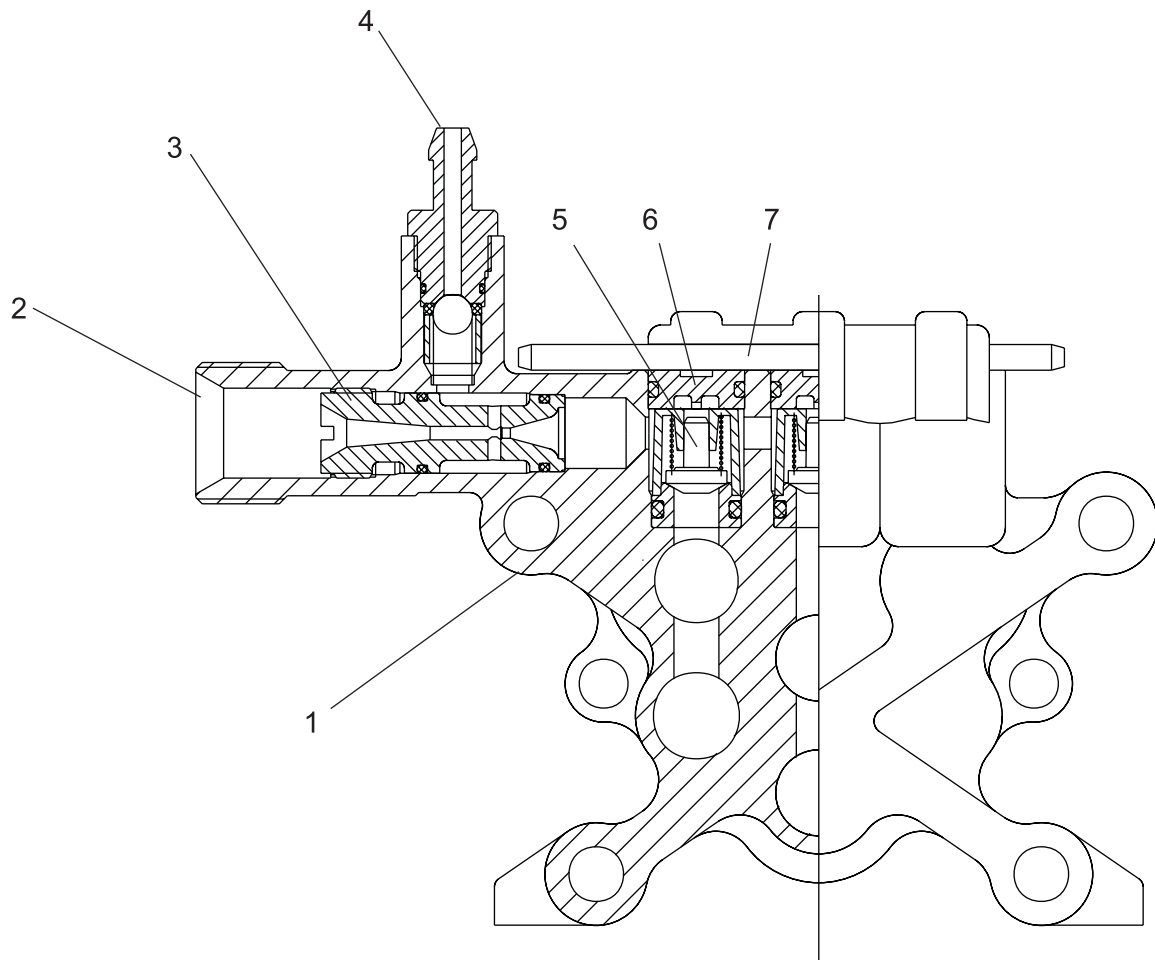
Thermo valve function

When closing the handgun while the engine is running, the engine keeps running with increased r.p.m.

The water is heated up due to its circulation in the cylinder head. If the handgun is not activated within approx. 5 minutes, the thermo valve (26) opens and the circulating hot water escapes through the drain bore (27). The opening temperature of the thermo valve is approx. 90°C. The continue flowing water cools the pump and therefore prevents overheating. In this case there will be a small water puddle underneath the pump.

**HD 830 BS****New Unit Information****International Service Information**

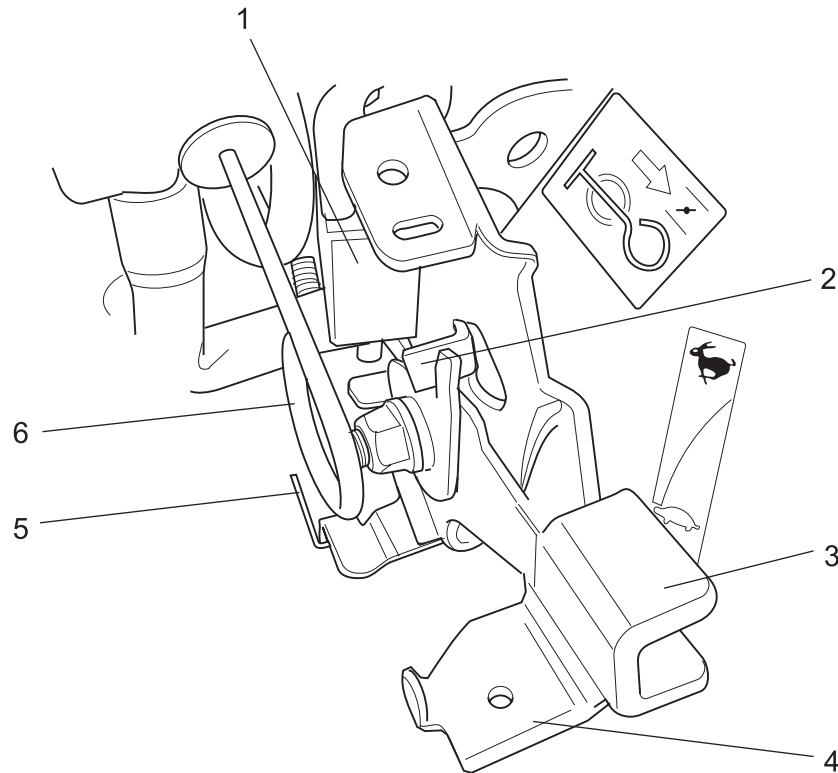
dated 14 September 2001

Technical Features: Pump

- 1 Cylinder head
- 2 High-pressure hose
- 3 Injector
- 4 Cleaning agent connection
- 5 High-pressure valve
- 6 Threaded plug
- 7 Retaining plate

**HD 830 BS****New Unit Information****International Service Information**

dated 14 September 2001

Basic Setting: Adjusting operating speed

- 1 Engine stop switch
- 2 Upper throttle lever limit stop
- 3 Throttle lever
- 4 Lower throttle lever limit stop
- 5 Connecting rod to carburettor
- 6 Choke lever

- Connect the shut-off valve with testing pressure gauge at high-pressure connection. Open the handgun completely. Set 3-way nozzle to pencil jet and run the engine.
- Push the throttle lever (3) to upper stop limit (2).
- Measure the operating speed. If necessary readjust the throttle lever limit stop (set value see specifications).
- Measure the operating pressure and flow rate. The set values have to be achieved during operating speed (set value see specifications).

Note:

The engine r.p.m. increases when the handgun is closed. The pump runs in circulation until the thermo valve opens (see also page 5).

The throttle lever (3) in stop position (throttle lever moved to lower limit stop) activates the engine stop switch (1) and also short-circuits the ignition.



HD 830 BS

New Unit Information

International Service Information

dated 14 September 2001

Troubleshooting

Problem	Remedy
Engine does not start.	<ul style="list-style-type: none">- Check choke position / adjust.- Check / clean fuel system.- Check / replace spark plug.- Check / replace engine stop switch.- Check / adjust ignition system.
Unsteady engine r.p.m.	<ul style="list-style-type: none">- Check / clean / replace air filter.- Eliminate leaks in high-pressure system.- Check fuel quality and fuel filter / replace.
Pump does not build up pressure.	<ul style="list-style-type: none">- Check / replace high-pressure nozzle.- Check / clean water inlet filter.- Eliminate leaks in high-pressure system.- Check / replace thermo valve.- Check / adjust engine r.p.m.
Pump does not draw in cleaning agent.	<ul style="list-style-type: none">- Check / adjust cleaning agent metering valve.- Check / clean cleaning agent non-return valve.- Check / clean injector.- High-pressure hose too long or inner diameter too small.

**HD 830 BS****New Unit Information****International Service Information****dated 14 September 2001****Specification**

unit type	unit no.	circuit diagram	operating instructions	maintenance booklet	spare parts list
HD 830 BS Honda GC 160	1.187-113	-	5.959-886	-	5.958-795

The technical specification sheet is on the next edition of the spare parts CD-ROM (DISIS) and in the Intranet.

Technical specification sheet: folder "Central / Service Info Int'l / Technical Specifications"

Further operating instructions and spare parts lists can be ordered with the corresponding part number from our Spare Parts Dept.

Special Tools

Shut-off valve	4.580-034
Testing pressure gauge	4.742-025
R.p.m. tester (digital)	6.803-012
Valve pliers	4.901-062
Mounting mandrel for high-pressure and oil seals	2.901-034
Mounting screws M6 x 16 (2x)	6.303-194

Assembly Torque Ratings

Cylinder head bolts	18 - 23 Nm
Swash plate fastening screw	8 - 10 Nm