

Pump unit

P 203



Description

The P 203 lubrication pump is versatile, compact and economical and can supply up to 150 lubrication points, depending on the line length. It consists of a housing with integrated motor, reservoir with stirring paddle, pump element (optionally incl. pressure-relief valve), filling nipple and electrical connection parts. This powerful pump can drive up to three pump elements and can be equipped with a low-level control (with or without control board). For applications demanding high quantities of lubricant, a new series of 30–60 l reservoirs is available on request.

Features and benefits

- Optional control printed circuit boards with different operating settings
- Range of reservoir types offered
- For DC or AC applications
- Variety of pumping elements for different output available

Applications

- Small- and medium-sized machinery
- Combines, balers, forage harvesters
- Rotating applications (wind turbines)
- Mobile applications
- General industries
- Wheel loaders
- Excavators



Technical data

Function principle	electrically operated piston pump
Operating temperature	
V DC:	–40 to +70 °C; –40 to +158 °F
V AC:	–25 to +70 °C; –13 to +158 °F
Operating pressure	350 bar; 5 075 psi
Lubricant	grease: up to NLGI 2 oil: viscosity 40–1 500 mm ² /s
Outlets	up to 3
Metering quantity ¹⁾	depending on pump element: 0,6–4,4 cm ³ /min per outlet 0,036–0,268 in ³ /min per outlet
Reservoirs	2–60 l (4, 8, 11, 15, 30, 40, 50, 60 l) 1/2–15 gal
Connection main line	G 1/4
Operating voltage	12/24 V DC, 110–260 V AC; 50/60 Hz
Dimensions	min. 211 × 224 × 287 mm max. 211 × 250 × 774 mm min. 8.31 × 8.82 × 11.29 in max. 8.31 × 9.84 × 30.47 in
Integrated control board options	
V10–13, V20–23	for setting pause and lubrication times
M08–23, MS8	for setting pause and monitoring times
H	for trailers, application controlled lubrication intervals
Protection class	IP6K9K
Mounting position	upright, with follower plate any

¹⁾ The values for metering quantity applies for pump speeds of 20 min^{–1}.



NOTE

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF.com/lubrication:

12401 EN



3D

skf-lubrication.partcommunity.com/3d-cad-models

Order information

Order number ¹⁾	Designation	Reser- voir size	Lubri- cant	Fill level warning	Pre- filled rate ²⁾	Delivery rate ³⁾	Refilling	Voltage	Control board ⁴⁾
		l gal		min max	cm ³ /min in ³ /min	top nipple	VAC/DC		
P203 for mobile applications									
644-41256-3	P203_E_-2XL_-600-12-00RG0000-V10A	2	0.53	grease	•	–	•	12	V10
644-41171-2	P203_E_-2XLB0-600-12-A100F200-V10A	2	0.53	grease	•	–	•	12	V10
644-40810-4	P203_E_-4XLB0-600-12-A100F200-V10A	4	1.05	grease	•	–	•	12	V10
644-41230-9	P203_E_-8XLB0-600-12-A100F200-V10A	8	2.11	grease	•	–	•	12	V10
644-40985-2	P203_E_-2XL_-600-24-00RG0000-V10A	2	0.53	grease	•	–	•	24	V10
644-40641-4	P203_E_-2XLB0-600-24-A100F200-V10A	2	0.53	grease	•	–	•	24	V10
6440-00000078	P203_E_-4XL_-600-24-00RG0000-V10A	4	1.05	grease	•	–	•	24	V10
644-40586-5	P203_E_-4XLB0-600-24-A100F200-V10A	4	1.05	grease	•	–	•	24	V10
6440-00000079	P203_E_-8XL_-600-24-00RG0000-V10A	8	2.11	grease	•	–	•	24	V10
644-40691-3	P203_E_-8XLB0-600-24-A100F200-V10A	8	2.11	grease	•	–	•	24	V10
644-41046-6	P203_E_-15XLB0-600-24-A100F200-V10A	15	3.96	grease	•	–	•	24	V10
644-37478-1	P203_E_-2XL_-600-24-1A00GB00-___A	2	0.53	grease	•	–	•	24	–
644-40608-7	P203_E_-2XLB0-600-24-1A00GB00-___A	2	0.53	grease	•	–	•	24	–
644-41058-5	P203_E_-4XL_-600-24-1A00GB00-___A	4	1.05	grease	•	–	•	24	–
644-37515-1	P203_E_-4XLB0-600-24-1A00GB00-___A	4	1.05	grease	•	–	•	24	–
644-37491-1	P203_E_-8XLB0-600-24-1A00GB00-___A	8	2.11	grease	•	–	•	24	–
644-41045-1	P203_E_-15XLB0-700-24-1A00GB00-___A	15	3.96	grease	•	–	•	24	–
P203 for rotating applications (reservoir incl. grease follower plate)									
644-40975-7	P203_E_-4XBF_-600-24-A1000000-V10Z	4	1.05	grease	•	•	–	24	V10
644-41068-9	P203_E_-8XBF_-600-24-A1000000-V10A	8	2.11	grease	•	•	•	24	V10
644-41046-5	P203_E_-15XBF_-700-24-A1000000-V10A	15	3.96	grease	•	•	•	24	V10
644-46345-3	P203_E_-4XBF_-600-24-11000000-___A	4	1.05	grease	•	•	•	24	–
644-41082-1	P203_E_-8XBF_-600-24-11000000-___A	8	2.11	grease	•	•	•	24	–
644-41328-3	P203_E_-15XBF_-600-24-11000000-___Z	15	3.96	grease	•	•	–	24	–
644-36495-6	P203_-_-4XBF_-600-AC-D1000000-V10Z	4	1.05	grease	•	•	–	110-260	V10
644-41215-6	P203_-_-8XBF_-600-AC-D1000000-V10Z	8	2.11	grease	•	•	–	110-260	V10
644-41051-4	P203_-_-15XBF_-606-AC-D1000000-V10Z	15	3.96	grease	•	•	–	110-260	V10
6440-00000055	P203_U_-4XBF_-700-AC-D1000000-___A	4	1.05	grease	•	•	•	110-260	–
644-41376-2	P203_-_-8XBF_-600-AC-D1000000-___A	8	2.11	grease	•	•	•	110-260	–
644-41050-6	P203_-_-15XBF_-700-AC-D1000000-___Z	15	3.96	grease	•	•	–	110-260	–
P203 for industrial applications									
644-40845-1	P203_-_-2XL_-600-AC-D100G200-V10A	2	0.53	grease	•	–	•	110-260	V10
644-40716-9	P203_-_-2XLB0-600-AC-D100G200-V10A	2	0.53	grease	•	–	•	110-260	V10
644-41333-6	P203_-_-4XL_-600-AC-D100G200-V10A	4	1.05	grease	•	–	•	110-260	V10
644-40799-1	P203_-_-4XLB0-600-AC-D100G200-V10A	4	1.05	grease	•	–	•	110-260	V10
644-40977-5	P203_-_-8XL_-700-AC-D100G200-V10A	8	2.11	grease	•	–	•	110-260	V10
644-40762-2	P203_-_-8XLB0-600-AC-D100G200-V10A	8	2.11	grease	•	–	•	110-260	V10
644-41381-2	P203_-_-15XLB0-600-AC-D100G200-V10A	15	3.96	grease	•	–	•	110-260	V10
644-40849-3	P203_-_-2XL_-600-AC-D100G200-___A	2	0.53	grease	•	–	•	110-260	–
644-40782-3	P203_-_-2XLB0-700-AC-D100G200-___A	2	0.53	grease	•	–	•	110-260	–
644-41194-5	P203_-_-4XL_-600-AC-D100G200-___A	4	1.05	grease	•	–	•	110-260	–
644-40718-5	P203_-_-4XLB0-700-AC-D100G200-___A	4	1.05	grease	•	–	•	110-260	–
644-41164-8	P203_-_-8XL_-600-AC-D100G200-___A	8	2.11	grease	•	–	•	110-260	–
644-40721-6	P203_-_-8XLB0-700-AC-D100G200-___A	8	2.11	grease	•	–	•	110-260	–
644-41050-1	P203_-_-15XLB0-700-AC-D100G200-___A	15	3.96	grease	•	–	•	110-260	–

¹⁾ Selection based on typical and available P203 designs. Further customized versions are available on request.

²⁾ Pumps are filled with following standard SKF Lincoln NLGI 2 grease quantities: 2L reservoir approx. 0,75kg / ≥ 4L reservoirs approx. 1,5kg grease

³⁾ The stated nominal outputs per minute and pump element refer to NLGI 2 lubrication greases at an ambient temperature of +20 °C [68 °F] and a backpressure of 100 bar [1450 psi]

at the outlet of the pump element. Deviating operating conditions or deviating pump configuration result in a changed motor speed of 20 rpm and thus in a change of the output per time unit.

⁴⁾ Integrated control board V10 factory setting: pause time 6h / lubrication time 6min. For further information, please see P203 manuals on SKF.com

Accessories

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Pump elements ¹⁾

Order number	Description	Material	Piston	Nominal output ⁶⁾	
			Ø mm	cm ³ /min	in ³ /min
600-78018-1	pump element L5 ²⁾	steel, gasnitro-carburized	5	0,6	0.036
600-26875-2	pump element K5	steel, gasnitro-carburized	5	2,0	0.122
600-26876-2	pump element K6	steel, gasnitro-carburized	6	3,2	0.195
600-26877-2	pump element K7	steel, gasnitro-carburized	7	4,4	0.268
655-28716-1	pump element KR	steel, gasnitro-carburized	7	0,8-3,6	0.0468-0.219
600-28750-1 ³⁾	pump element C7	steel, gasnitro-carburized	7	4,4	0.268
600-29303-1	pump element K5 DN	steel, nickel-plated ⁵⁾	5	2,0	0.122
600-29304-1	pump element K6 DN	steel, nickel-plated ⁵⁾	6	3,2	0.195
600-29305-1	pump element K7 DN	steel, nickel-plated ⁵⁾	7	4,4	0.268
600-29185-1 ⁴⁾	pump element B7 DN	steel, nickel-plated ⁵⁾	7	2,0	0.122

¹⁾ Male thread M 22 × 1,5; female thread G 1/4

²⁾ L5 only permitted for application of NLGI 00 lubrication grease

³⁾ Pump element for supplying of chisel paste

⁴⁾ With bypass check valve

⁵⁾ For application in beverage industry

⁶⁾ The stated nominal outputs per minute and pump element refer to NLGI 2 lubrication greases at an ambient temperature of + 20 °C [68 °F] and a pressure of 100 bar [1450 psi] at the outlet of the pump element. Deviating operating conditions or deviating pump configuration result in a changed motor speed of 20 rpm and thus in a change of the output per time unit.

Return-line connector with filler fitting, screw type

Order number	Description	Filling nipple	Thread	Tube	Reservoir
				Ø mm	
504-30698-1	return-line connector	straight	R1/4	6	2 l
504-36071-5	return-line connector	straight, with adapter	R1/4	6	2 l flat-type, 4 and 8 l
504-36071-6	return-line connector-line	90°	R1/4	6	2 l flat-type, 4 and 8 l
304-16543-1	adapter		M 22 × 1,5 × G1/4		

Reservoir conversion sets

Order number	Designation
Conversion set from 2 to 4 l reservoir:	
544-32787-1	2XN to 4XN
544-32022-1	2XN to 4XNBO
Conversion set from 2 to 8 l reservoir:	
544-32788-1	2XN to 8XN
544-32023-1	2XN to 8XNBO

Quick filling connector

Order number	Description	Connection	Filter
544-36961-1	filler fitting with protective cap	G 1/4	-
504-32125-1	coupling plug with protective cap	G 1/4	-
233-10765-3	protective cap; for replacement	G 1/4	-
540-36753-5	filler fitting assembly	M22 × 1,5	•
540-31800-1	filler fitting	M22 × 1,5	•
504-36071-7	filler fitting	M22 × 1,5	-

Fuse holder with fuse

Order number	Description	Current load
237-13321-8	fuse holder	5 A
237-13426-1	fuse holder	8 A

Bracket for fixing pump and main metering device

Order number	Description
307-19644-1	bracket P203

Pressure relief valves

Order number	Designation	Description	Relief pressure		Connection pressure line
			bar	psi	
624-28891-1	VALVE SVTS -200-R1/4-D 6	pressure relief valve (PRV)	200	2900	screw type fitting D6
624-28859-1	VALVE SVTSV-270-R1/4-1/8NPTF+NIP00R	PRV with emergency lubrication fitting, right-hand	270	3915	thread 1/8 NPT female
270864	VALVE SVTSV-270-R1/4-1/8NPTF+NIP00R	PRV with emergency lubrication fitting, right-hand	270	3915	thread 1/8 NPT female
624-28894-1	VALVE SVTS -350-R1/4-D 6	pressure relief valve (PRV)	350	5075	screw type fitting D6
624-28896-1	VALVE SVTS -350-R1/4-D 6+NIP00L	PRV with emergency lubrication fitting, left-hand	350	5075	screw type fitting D6
624-28897-1	VALVE SVTS -350-R1/4D 6+NIP00R	PRV with emergency lubrication fitting, right-hand	350	5075	screw type fitting D6
624-29426-1	VALVE SVKSV-350-1/4-D6 +MANO 0-400BAR	PRV kit with pressure gauge 0-400bar	350	5075	screw type fitting D6
624-28895-1	VALVE SVTS -350-R1/4-D 8	pressure relief valve (PRV)	350	5075	screw type fitting D8
624-28861-1	VALVE SVTSV-200-R1/4- 6	pressure relief valve (PRV)	200	2900	push-in type fitting D6
624-29087-1	VALVE SVTSV-200-R1/4 -6+RETURN FITT.ASS	PRV kit with grease return to the reservoir	200	2900	push-in type fitting D6
624-77971-1	VALVE SVTSV-270-R1/4 -6+RETURN FITT.ASS	PRV kit with grease return to the reservoir	270	3915	push-in type fitting D6
624-28860-1	VALVE SVTSV-350-R1/4- 6	pressure relief valve (PRV)	350	5075	push-in type fitting D6
624-28858-1	VALVE SVTSV-350-R1/4- 6+NIP00R	PRV with emergency lubrication fitting, right-hand	350	5075	push-in type fitting D6
624-28867-1	VALVE SVTSV-350-R1/4- 6+NIP00L	PRV with emergency lubrication fitting, left-hand	350	5075	push-in type fitting D6
624-28931-1	VALVE SVTSV-350-R1/4 -6+RETURN FITT.ASS	PRV kit with grease return to the reservoir	350	5075	push-in type fitting D6
624-77911-1	VALVE SVTSV-350-R1/4 -6+RET.FITT.ASS VA	PRV kit with grease return to the reservoir VA	350	5075	push-in type fitting D6
226-14105-5	NIPPLE S2520-1/4-1/4-S01	PRV adapter for connection of 2L flat-type or 4 and 8l reservoir			screw type fitting D6
524-32231-1	REDESIGN-KIT:GREASE RET.FITT.SVTSV+SVTE	PRV redesign kit with grease return to the reservoir			push-in type fitting D6

Valve insert for pressure relief valves as replacement

Order number	Description	Relief pressure	
		bar	psi
235-14343-3	valve insert	350	5 075
235-14343-2	valve insert	270	3 915
235-14343-7	valve insert	250	3 625
235-14343-1	valve insert	200	2 900
235-14343-5	valve insert	120	1 740
235-14343-4	valve insert	80	1 160

Push-button illuminated

Order number	Description	Voltage	Light
664-85388-8	round	12/24 VDC	green
664-85388-9	round	12/24 VDC	red
664-85421-9	round	12/24 VDC	yellow
236-10280-6	rectangular	24 VDC	green

Connection socket and cable ¹⁾

Order number	Description	Cable		Protection class
		m	ft	
544-32850-1	connection socket with gasket and screw, black	–	–	IP65
544-33843-1	connection socket with gasket and screw, grey	–	–	IP65
664-36862-8	connection cable with connection socket, black	6	20	IP67
664-36078-7	connection cable with connection socket, black	10	30	IP67
664-36078-9	connection cable with connection socket, grey	10	30	IP67
664-36862-2	connection cable ADR with connection socket, grey	10	30	IP65
664-36862-1	connection cable ADR with connection socket, black	10	30	IP65
664-34167-2	connection cable with bayonet socket (7/5 pole)	10	30	IP 6K9K
664-34428-3	connection cable with bayonet socket (7/7 pole)	10	30	IP 6K9K
664-34167-6	connection cable with bayonet socket (4/3 pole)	10	30	IP 6K9K
664-34167-9	connection cable with bayonet socket (4/4 pole)	10	30	IP 6K9K

¹⁾ The type of connection sockets and cable depend on the equipment of the pump. Please refer to the assembly instruction of the respective pump.