DV207

Vibratory Roller

SERVICE MANUAL

Part number 84555711A

English

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CASE CONSTRUCTION

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Safety precautions during work on hydraulic circuits

- Check that hydraulic circuits have been depressurized before removing them. Hydraulic oil that leaks under pressure could cause serious skin injury.
- Mark parts, hoses and pipes before removing them.
- Do NOT operate hydroelectric generators or hydromotors with no oil.
- There is a scalding hazard when handling hot oil.
- Do NOT heat oil over 160°C (320°F) – oil or its vapors could flame up.
- Use lint-free cloth when wiping and cleaning hydraulic parts.
- Use hydraulic oil – not lube grease – as lubricating agent during parts installation work.
- Thoroughly clean the bolting before installation work; flush and blow out the hoses and pipes with air.
- It is important to ALWAYS use new gaskets.
- After hydraulic set replacement, flush the hydraulic circuit and clean the hydraulic tank.
- Replace the oil filter element.
- Fill the hydraulic circuit with clean oil of the specified viscosity – only with the engine switched off!
- Wipe up any spilled oil.
- Confirm that connections are tight with no oil leaks before pressurizing the system.
- Upon completion of all of the work, check all connections.
- Do NOT adjust the relief valves.
- Reinstall all protective elements after the work is completed.

Check the following once the machine is in operation

- Oil level in the hydraulic tank.
- Check the boost pressure of hydroelectric generators when these are replaced and check relief valve pressure.
- Always measure at 40°C (104°F).

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5.1. Check the tightening of bolted joints

- Confirm regularly that bolted joints have not come loose.
- Use torque wrenches for tightening.

	TIGHTENING TORQUE			
	For screws 8.8 (8G)		For screws 10.9 (10K)	
Thread size	Nm	lb-ft	Nm	lb-ft
M6	10	7.4	14	10.3
M8	24	25.0	34	25.0
M8x1	19	14.0	27	19.9
M10	48	35.4	67	49.4
M10x1.25	38	28.0	54	39.8
M12	83	61.2	117	86.2
M12x1.25	66	48.7	94	69.3
M14	132	97.3	185	136.4
M14x1.5	106	78.2	148	109.1
M16	200	147.5	285	210.2
M16x1.5	160	118.0	228	168.1
M18	275	202.8	390	287.6

	TIGHTENING TORQUE			
	For screws 8.8 (8G)		For screws 10.9 (10K)	
Thread size	Nm	lb-ft	Nm	lb-ft
M18x1.5	220	162.2	312	230.1
M20	390	287.6	550	405.6
M20x1.5	312	230.1	440	324.5
M22	530	390.9	745	549.4
M22x1.5	425	313.4	590	435.1
M24	675	497.8	950	700.6
M24x2	540	398.2	760	560.5
M27	995	733.8	1400	1032.5
M27x2	795	586.3	1120	826.0
M30	1350	995.7	1900	1401.3
M30x2	1080	796.5	1520	1121.0

The values given in the table are torques at dry thread (at coefficient of friction = 0.14). These values do not apply to greased thread.

NOTE: *Different tightening torques have been stated in relevant chapters.*

Table with torques of cap nuts with O-ring – hoses

			Tightening torques for sliding nuts with O-ring – hoses					
			Nm			lb-ft		
Wrench size	Thread size	Hose	Nominal	Min	Max	Nominal	Min	Max
14	12x1.5	6	20	15	25	15	11	18
17	14x1.5	8	38	30	45	28	22	33
19	16x1.5	8	45	38	52	33	28	38
		10						
22	18x1.5	10	51	43	58	38	32	43
		12						
24	20x1.5	12	58	50	65	43	37	48
27	22x1.5	14	74	60	88	55	44	65
		15						
30	24x1.5	16	74	60	88	55	44	65
32	26x1.5	18	105	85	125	77	63	92
36	30x2	20	135	115	155	100	85	114
		22						
41	36x2	25	166	140	192	122	103	142
46		28						
50	42x2	30	240	210	270	177	155	199
50	45x2	35	290	255	325	214	188	240
	52x2	38	330	280	380	243	207	280
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Remove the bracket of the engine rubber mounting (3x).





Suspend the engine in a hoisting device with a 700 kg (1543 lb) load capacity and take it out. Position the engine on a pedestal with sufficient load capacity.



NOTE: *When replacing the engine, adjust max engine rpm. Do NOT adjust idle speed (800 rpm).*

Max rpm with no load:

Machine with CE: 2100 ± 20 rpm

Machine with no CE: 2200 ± 20 rpm

(at the lower pulley the idle speed is 800 ± 20 rpm). Set engine speed by adjusting the stop screw on the injection pump. Be careful not to break off the counter nut! Adjust with the engine stopped, at operating temperature and with no load.



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