Service-Manual

Compact Excavator

1403 1503
1903 2203



Machine model	**1403-2203**
Edition	**1.1**
Language	**English**
Item No.	**1000081432**

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COMPANY

neuson

Baumaschinen GmbH

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Primary dimensions

		Unit	1903	2203
>> Starting with Fabr.No.			AB00440	
Dimensions (H x W x L)		mm	2375 / 990 / 2715	2395 / 990 / 2715
Axle distance		mm	1325 / 1710	1325 / 1710
Transport length		mm	3990	3990
Boom swing angle	Left / right	degr	80 / 45	80 / 45
Front boom swing radius	min	mm	1575	1575
Tilt angle uppercarriage		degr	N	15
Ground clearance	max	mm	180	180
Undercarriage width		mm	990 bis 1300	990 bis 1300
Track width	Standard	mm	250	250
Max. Dump height	Standard	mm	2760	2780
Max. Dump height / Option	Dipperstick long	mm	2890	2915
Max. Dig height	Standard	mm	3860	3885
Max. Dig height / Option	Dipperstick long	mm	3990	4275
Max. Dig radius	Standard	mm	4090	4090
Max. vertical dig depth	Standard	mm	1670	1650
Max. dig depth	Standard	mm	2500	2480
Min. tail swing radius		mm	1160	1160
Dozer blade dimensions (W x H)	Standard	mm	990 / 260	990 /260
Dozer blade max. lift ... Ground	above / below	mm	245 / 238	245 / 238
Track rollers / guide rollers	per side	pcs	4	4
Operation weight with	Cab	kg	1944	2017
Operation weight with	Canopy	kg	1854	1927
Ground pressure	Standard	kg/cm²	0,27	0,28
Gradability		degr / %	30 / 58	30 / 58
Noise level	LWA	dB (A)	94	94
Noise level	LPA	dB (A)	75	75
Travel speed	Drive	km/h	2,0 / 4,0	2,0 / 4,0
Tear out force per	Bucket tooth	kp	1846	1846
Max. dipper stick tear out force	Standard	kp	1198	1198
Slew (swivel-) speed	Uppercarriage	rpm	10	10

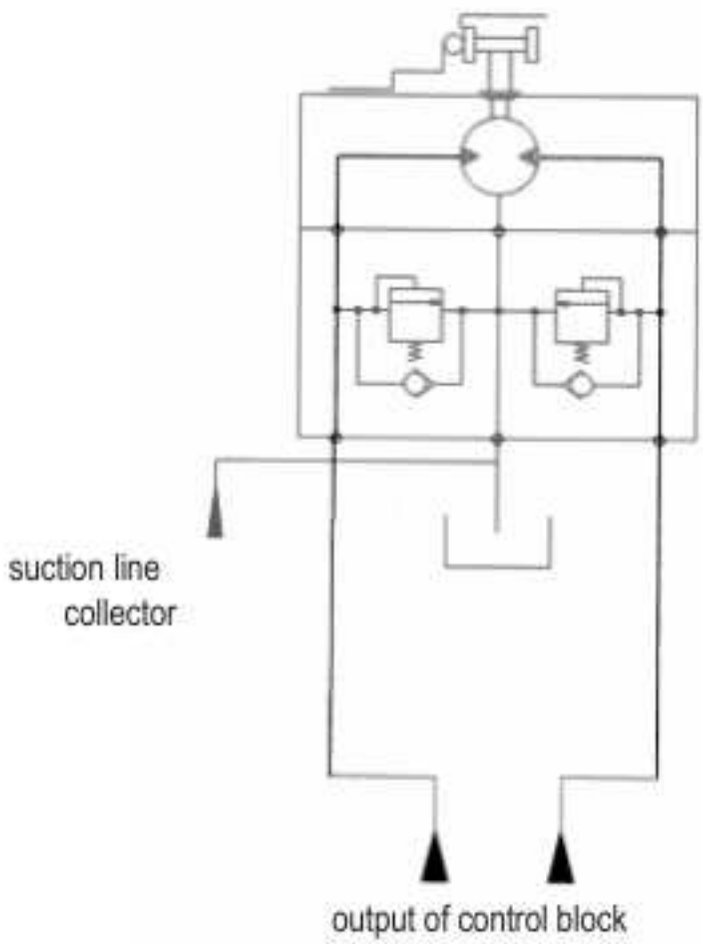
Explaination:
O... Option
N... No / Not
F... Missing information

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Assembly of swivel motor OMS H250:

1. Align valve chamber with the oil ports in such a way that the ports point to body.
2. Insert stationary distributor head into chamber.
3. Insert movable distributor head in such a way that the inside duct is placed exactly above the inside oil duct (of the oil port). The chamber bottom must be visible!
4. Mount the stationary distributor head in such a way that the oil leakage bore is placed above the oil leakage duct.
5. Insert valve of cardan shaft.
6. Mount toothed rim, which is aligned with the distributor head by means of fixing pin.
   Check: inner oil duct at the chamber bottom must still be visible.
7. Move toothed wheel to rightmost position; insert roller.
8. Mount cardan shaft and bearing housing.
9. When tightening the motor make sure to observe the correct tightening torque! (75-80 Nm)

Fig.: **Circuit diagram OMS 250 H**

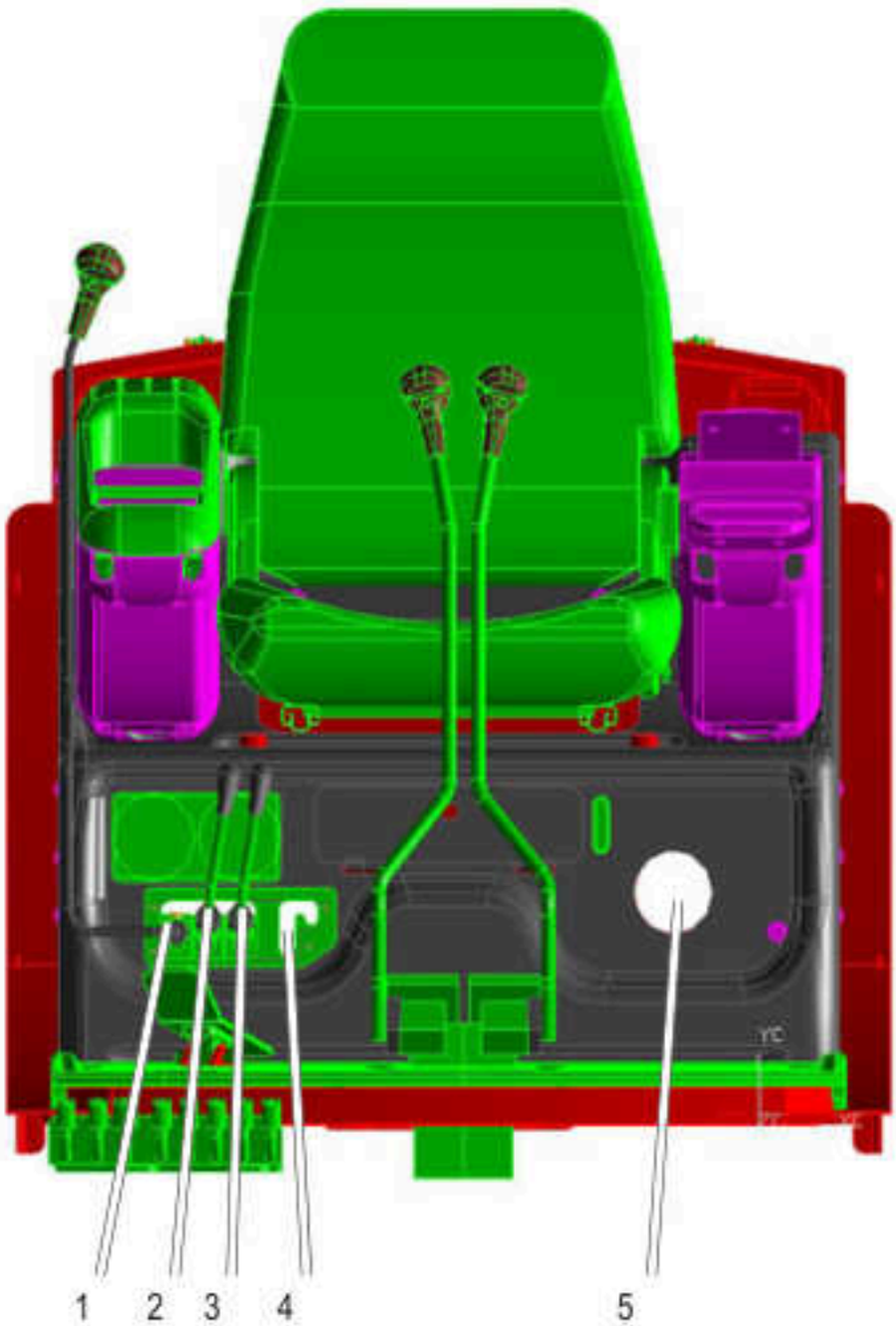


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Problem		Possible causes
Insufficient engine output		Oil level too high
		Fuel grade does not comply with specifications
		Fouled air filter
		Defective air filter maintenance switch or gauge
		Wrong valve tip clearance
		Injection line leaks
		Defective fuel injector
Engine does not run on all cylinders		Injection line leaks
		Defective fuel injector
Insufficient or no engine oil pressure		Oil level too low
		Machine inclination is too high (see engine specifications)
		Fouled oil intake filter
		Wrong SAE grade of engine lubrication oil
Engine oil consumption too high		Oil level too high
		Machine inclination is too high (see engine specifications)
Engine smoke	Blue	Oil level too high
		Machine inclination is too high (see engine specifications)
		Engine oil combustion (defective cylinder-head gasket)
	White	Engine starting temperature too low
		Fuel grade does not comply with specifications
		Defective fuel injector
		Coolant combustion (defective cylinder-head gasket)
	Black	Fouled air filter
		Defective air filter maintenance switch or gauge
		Wrong valve tip clearance
		Defective fuel injector (drips)
		Wrong fuel injection pump setting

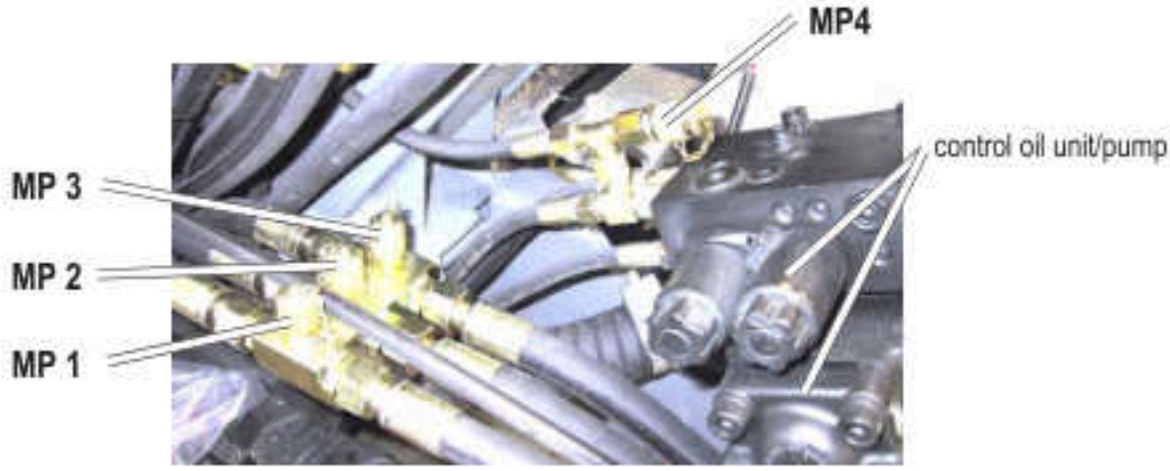
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Fig.: **Operating equipment:**



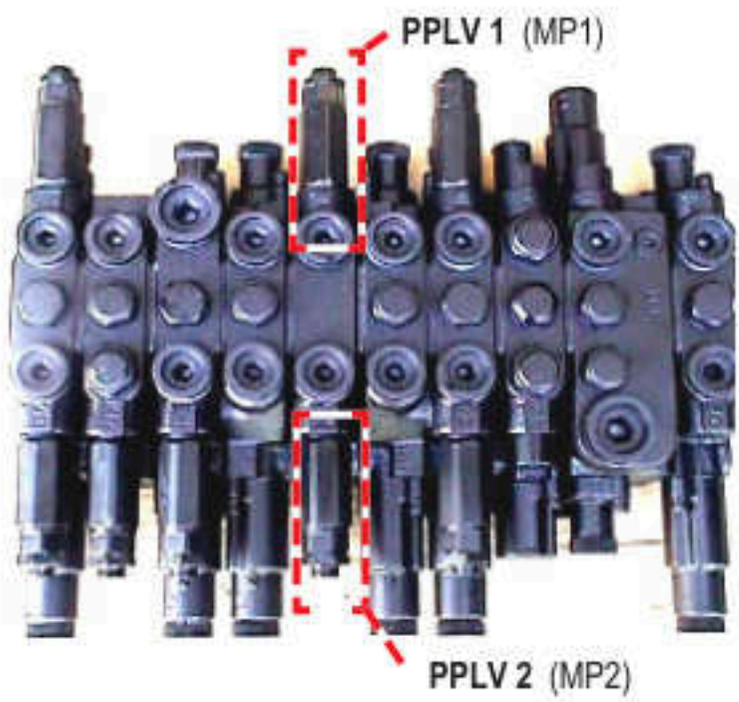
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Fig.: **Measuring ports** at the measuring strip











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