SERVICE MANUAL
NEUSON

COMPACT EXCAVATOR

5002 / 6002



Symbol picture

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Type relativ tightening torques
for high quality screw joints

Tightening torque M_A for Screw joints at Neuson 5002 - 12002

	5002 RD		6002 RD		6502 WD		8002 RD		12002 RD	
Turn table	M14 10.9	180 Nm*	M16 10.9	275 Nm*	M16 10.9	275 Nm*	M16 10.9	275 Nm*	M18 10.9	395 Nm*
	M16 10.9	275 Nm*								
Track roller	M16 10.9	275 Nm*	M16 10.9	275 Nm*			M12 10.9	110 Nm*	M16 12.9	358 Nm*
Swivel joint	M10 10.9	64 Nm*	M10 10.9	64 Nm*	M10 10.9	64 Nm*	M10 10.9	64 Nm*	M10 10.9	64 Nm*
Sprocket	M14 10.9	180 Nm*	M14 10.9	180 Nm*			M14 10.9	180 Nm*	M16 10.9	275 Nm*
Drive unit	M14 10.9	180 Nm*	M14 10.9	180 Nm*	M8 10.9	35,3 Nm*	M16 10.9	275 Nm*	M16 10.9	275 Nm*
Swivel unit	M12 10.9	110 Nm*	M12 10.9	110 Nm*	M12 10.9	110 Nm*	M12 10.9	110 Nm*	M14 12.9	220 Nm*
Cab fixing screws	M10 8.8	45 Nm	M10 8.8	45 Nm	M10 8.8	45 Nm	M10 8.8	45 Nm	M10 8.8	45 Nm
	M12 8.8	87 Nm	M12 8.8	87 Nm	M12 8.8	87 Nm	M12 8.8	87 Nm	M12 8.8	87 Nm
Engine carrier	M10 8.8	45 Nm	M10 8.8	45 Nm	M10 8.8	45 Nm	M10 8.8	45 Nm	M10 8.8	45 Nm
Engine carrier	M10 10.9	64 Nm	M12 10.9	110 Nm	M12 10.9	110 Nm	M12 10.9	110 Nm	M12 10.9	110 Nm
	M8 8.8	25,5 Nm	M10 8.8	45 Nm	M10 8.8	45 Nm	M10 8.8	45 Nm	M10 8.8	45 Nm
Pump carrier	M10 10.9	64 Nm	M10 10.9	64 Nm	M10 10.9	64 Nm	M10 10.9	64 Nm	M10 10.9	64 Nm
Pump	M12 10.9	87 Nm	M16 10.9	275 Nm	M16 10.9	275 Nm	M10 10.9	64 Nm	M16 10.9	275 Nm

*) Alle mit * gekennzeichneten Verbindungen, müssen mit Loctite S2420 oder VaryBond 12-43 eingeklebt werden.

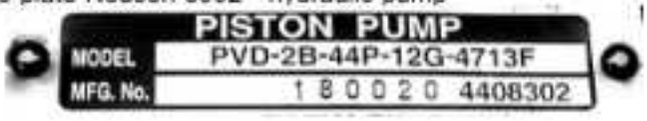
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3. HYDRAULIC PUMP

Neuson **5002**

Pumpe: **Double variable displacement axial piston pump** (monohousing design) + **1 gear pump**
Type: Neuson 4408302 (PVD-2B-44P-12G-4713F) - black lacquered

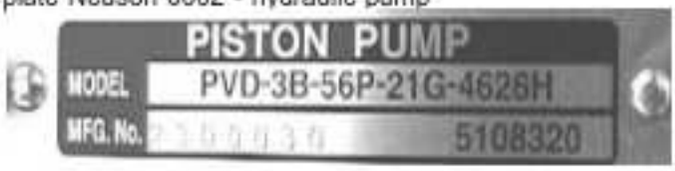
Fig.: Type plate Neuson 5002 - hydraulic pump



Neuson **6002**

Pump: **Double variable displacement axial piston pump** (monohousing design) + **1 gear pump**
Type: Neuson 5108320 (PVD-3B-56P-21G-4626F) - red lacquered

Fig.: Type plate Neuson 6002 - hydraulic pump



Features: -1 axial piston pump with 2 separate pressure outputs (P1, P2)
swash plate type
- gear pump, flange-mounted
- summation regulation, three-circuit regulation

Tightening torques: **TT**

Neuson 5002	pump / pump bracket	M12 10.9 -	87 Nm
	pump bracket / diesel engine	M10 10.9 -	64 Nm
Neuson 6002	pump / pump bracket	M16 10.9 -	275 Nm
	pump bracket / diesel engine	M10 10.9 -	64 Nm

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Function **Drive Counterbalancing System**
Neuson 5002 - 6002

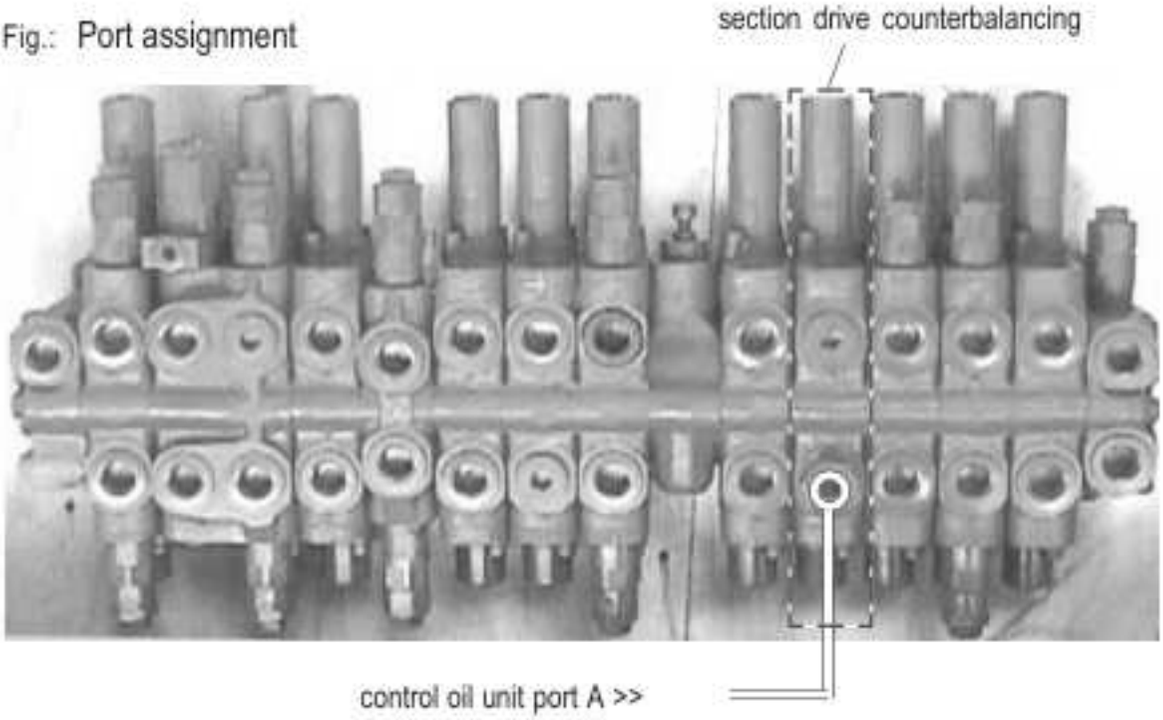
See **circuit diagram** drive counterbalancing system:
- Both spool valves for driving and one arm function must be actuated.
- The drive counterbalancing system (main valve block) is activated because of an increased banking-up pressure (blue dotted line).
- P3 - assumes supply of arm functions.
- Section auxiliary hydraulics:

Switching pressure drive counterbalancing valve: 10 - 15 bar

Pump assignment when drive counter balancing system is active:

section **driving** left — supplied by **P1**
secion **driving** right — supplied by **P2**
section **auxiliary hydrauilcs**
section **bucket**
section **boom**
section **dipper stick**
section flow rate AH
section **dozer blade**
section **swivel unit**
section drive counterbalancing
— supplied by **P3**

Fig.: Port assignment

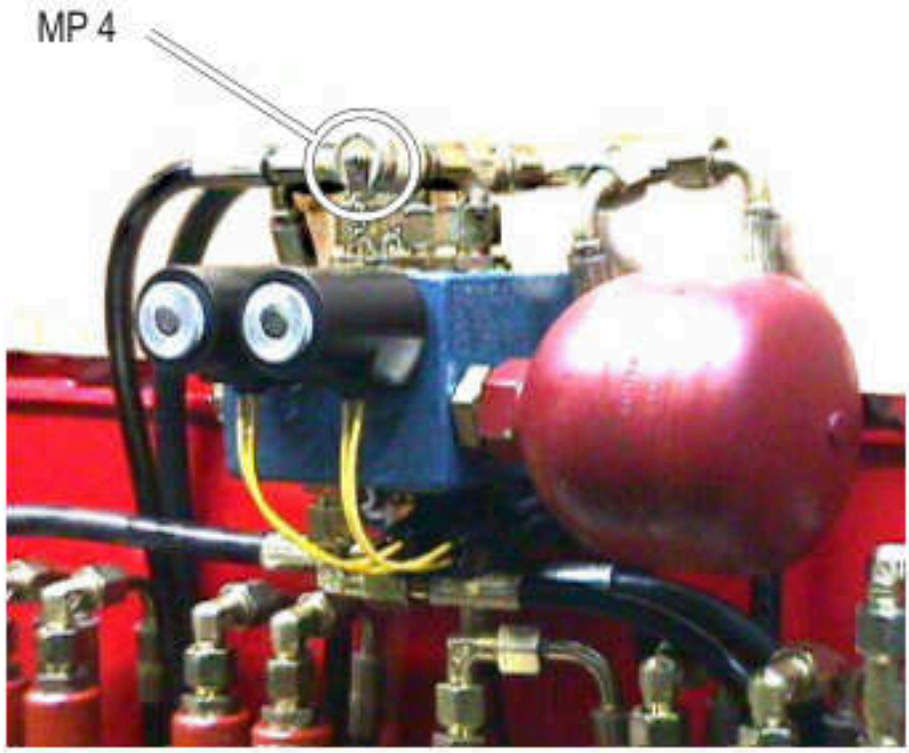


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Fig.: Position of **measuring ports** (MP 1 - 3) **main valve block** 5002 / 6002



Fig.: Position of **measuring ports** (MP 4) **control oil unit** 5002 / 6002



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Function **Oil Flow Adjusting Screws - Auxiliary Hydraulics** (AH)
Neuson 5002 - 6502

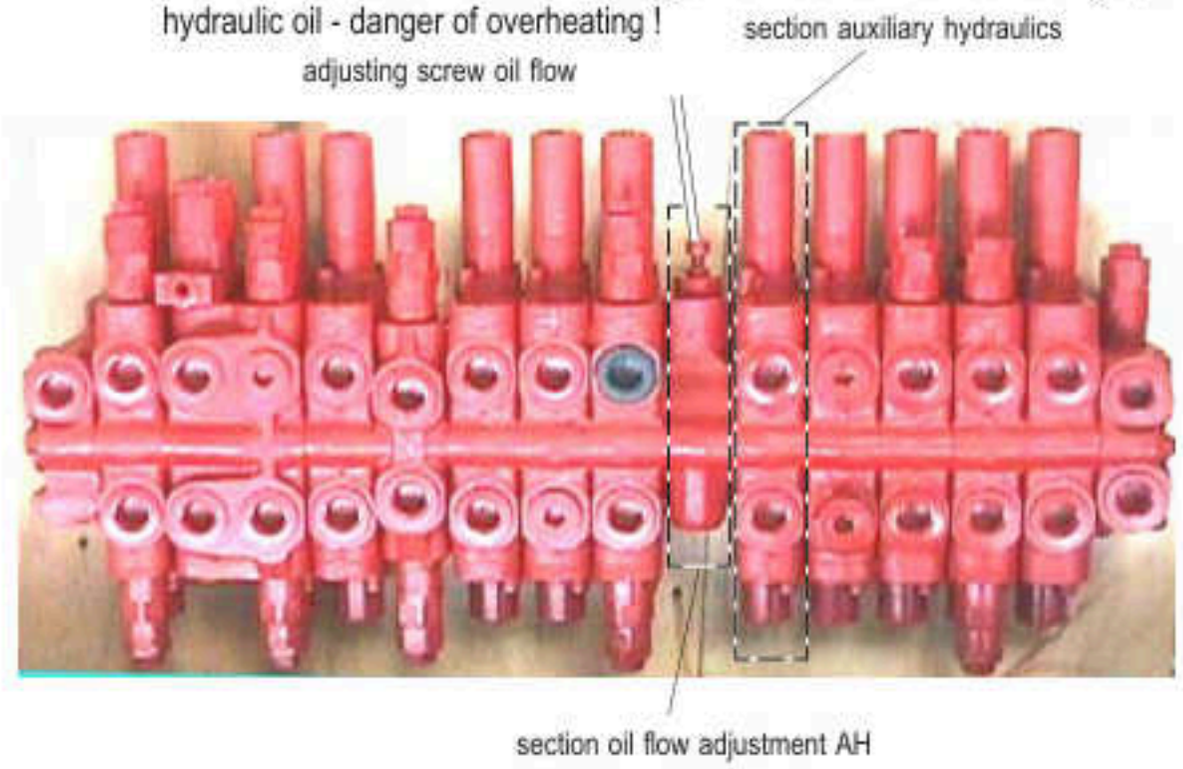
Feature: By means of the adjusting screw at the main valve block the available oil flow can be varied.

Only **two settings** are **possible**:
(See chapt.: Technical Data - Pressure-Variable Oil Flow of Auxiliary Hydraulics AH)

A) Adj. screw „totally in" (**valve seat closed**):
- **P2** + **P3** supply the ports of the auxiliary hydraulics
- standard condition

B) Adj. screw „open" (**seat - two turns out** anticlockwise):
- **P2** supplies the section auxiliary hydraulics.
- The oil of P3 runs off via the opened valve seat to the tank.

Warning:
- There is no end position of the adjusting screw, when opened - valve may be turned out completely!
- Intermediate positions of the adjusting screws lead to a severe heating up of the hydraulic oil - danger of overheating !



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