SERVICE MANUAL

S4L2, S4L

Engine

Part number 84373329
English
August 2010

MidWestTech | New Holland S4L2,S4L Engine Service Manual | Publication 84373329

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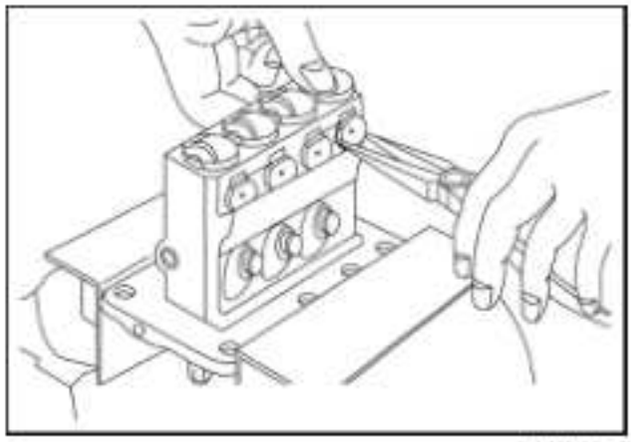
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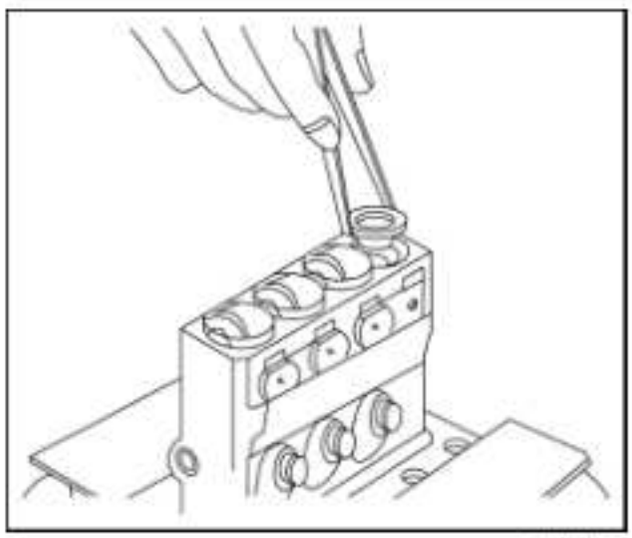
3. While pushing in the tappet, pull out the tappet guide pin with long-nose pliers.



3

Removing plunger

1. Remove the tappet adjusting shim.
2. Using tweezers, remove the plunger together with the spring lower seat.
3. Remove the plunger spring.
4. Remove the control sleeve together with the spring upper seat.
5. Pull out the control rack.



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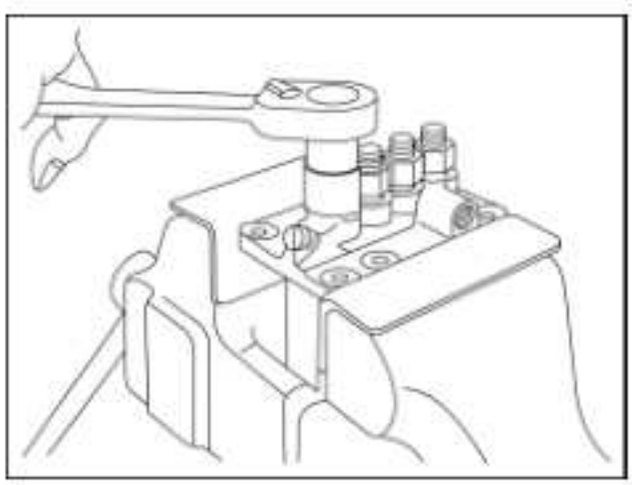
Removing the delivery valve

NOTICE: *The delivery valve, plunger and plunger barrel are precision-machined parts. Do not smear or scratch them.*

Keep the combination of the plunger barrel and plunger for each cylinder when removing. Do not mix the plunger barrel with the plunger of a different cylinder.

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1. With pump housing faced up, grab the housing with a vise.
2. Remove the delivery valve holder.
3. Remove the delivery valve gasket.



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LUBRICATION SYSTEM - General specification

S4L, S4L2

Engine model	S4L, S4L2
Lubrication system	Pressure feed, full flow filter system
Specification (API service category)	Class CD oil
Oil capacity	**5.0 l (1.3 US gal)** including the filter **4.5 l (1.19 US gal)** - oil pan upper limit
Oil pump - Type - Discharge rate	 Gear pump **18 l/min (4.76 US gpm) @ 3300 RPM**
Relief valve - Type - Valve opening pressure	 Piston valve type **0.3 - 0.4 MPa (42 - 57 psi)**
Oil filter type	Paper element (spin on)

LUBRICATION SYSTEM - General specification

Inspection point	Nominal	Standard	Limit	Remark
Lubricating oil pressure Rotated speed Low idling speed		 **0.29 - 0.39 MPa (42 - 57 psi)** **0.098 MPa (14 psi)**		 Oil temperature at **60 - 70 °C (140 - 158 °F)** Oil temperature at **60 - 70 °C (140 - 158 °F)**
Relief valve opening pressure		**0.3 - 0.4 MPa (42 - 57 psi)**		Replace
Pressure at which the oil pressure switch illuminates		**0.04 - 0.06 MPa (6 - 9 psi)**		Replace

LUBRICATION SYSTEM - Torque

Description	Threads Diameter x pitch	Torque	Remark
Oil relief valve	M22 x 1.5	**44 - 54 N·m (32 - 40 lb ft)**	
Oil drain plug	M14 x 1.5	**34 - 44 N·m (25 - 32 lb ft)**	
Oil filter	M20 x 1.5	**11 - 13 N·m (8 - 10 lb ft)**	
Oil cooler connector	M20 x 1.5	**59 - 79 N·m (44 - 58 lb ft)**	
Turbocharger oil pipe mounting bolt	M10x 1.25	**14 - 19 N·m (10 - 14 lb ft)**	
Oil pressure switch	PT 1/8	**8 - 12 N·m (6 - 9 lb ft)**	
Oil pan mounting bolt - Stamped steel pan - Cast oil pan	 M8 x 1.25 M8 x 1.25	 **10 - 13 N·m (7 - 10 lb ft)** **25 - 30 N·m (18 - 22 lb ft)**	 Equivalent to 4T
Oil strainer nut	M16 x 1.5	**25 - 30 N·m (18 - 22 lb ft)**	

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