SERVICE MANUAL

E215B
E245B
Crawler Excavators ROPS Tier III

Print No. 84392396A

NEW HOLLAND CONSTRUCTION

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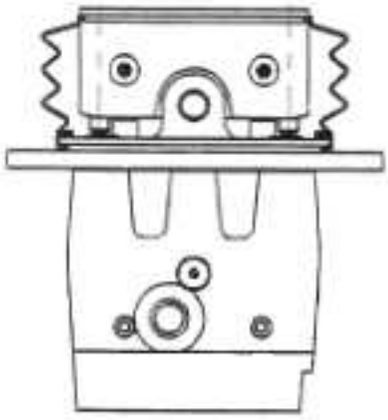
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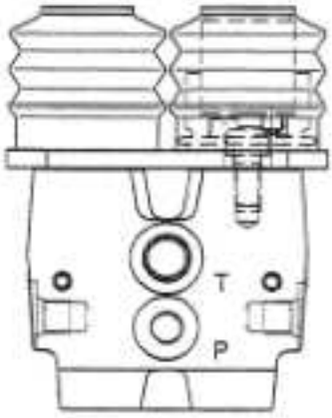
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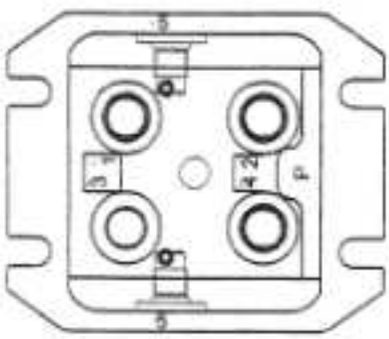
PILOT VALVE (TRAVEL)

OUTLINE

Outside view





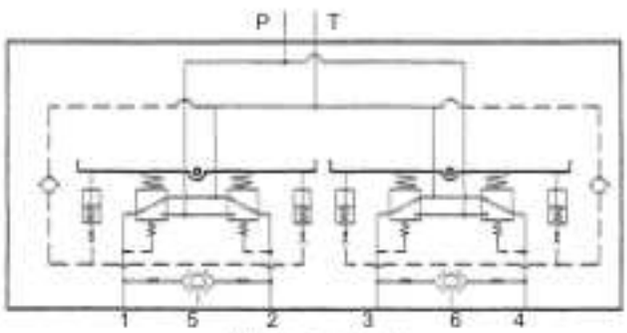


Port size	Tightening torque N·m (lbf·ft)	Port name	Function
PF3/8	30 (22)	1	LH travel forward port
		2	LH travel reverse port
		3	RH travel forward port
		4	RH travel reverse port
		T	Tank port
PF1/4	16.7 (12.3)	5	LH travel pressure sensor port
		6	RH travel pressure sensor port
		P	Pilot primary pressure port

SM00196

Specifications

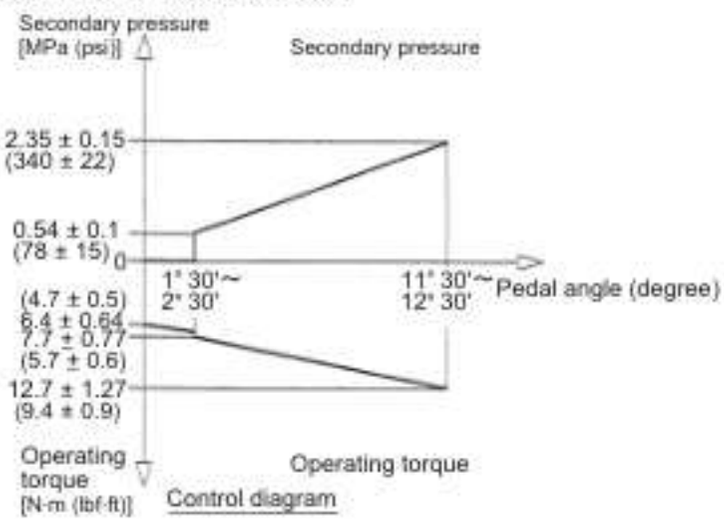
Type	6TH8NRZ
Primary pressure	4.9MPa (711psi)
Secondary pressure	0.54~2.35MPa (78~341 psi)
Rated flow	25 L/min (6.6 gal/min)
Weight	Approx. 8kg (18 lbs)



Hydraulic symbol

SM0697

Performance characteristics



Control diagram

SM0698

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Table 79

Error code	H013		
Trouble	Accel potentiometer is disconnected.		
Judging condition	The input voltage from accel potentiometer is 0.1 V or less.		
Symptom	LOW idling is fixed.		
Control in the event of failure	LOW idling is fixed.		
Returned in normal condition	It returns automatically in normal condition.		
Service diagnosis checking screen	Screen No.	2	H-1 ACCEL VOLT.
	Screen No.		
	Screen No.		

	Checking object	Checking contents and remedy
1	• Accel potentiometer SE-16	Measure the resistance between terminals of speed sensor. 1.6~2.4k Ω Turn the potentiometer and measure resistance between signal and GND.
2	• Wiring between accel potentiometer and controller CN-402F CN-102F	Check wiring for possible failure according to the wiring checking procedure and repair it if necessary.
3	• Mechatro controller	Check that the error is corrected after replacement of controller.

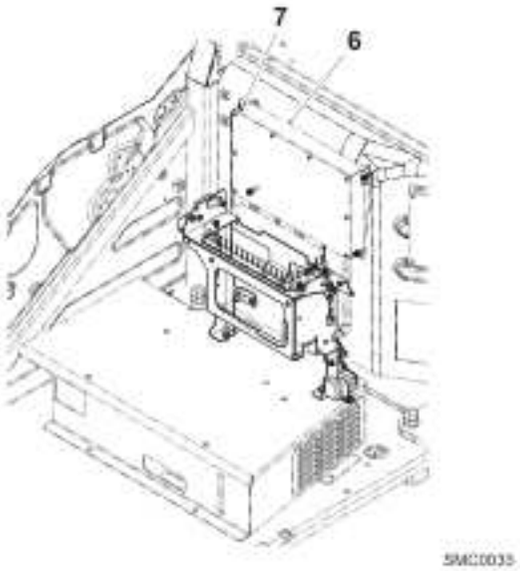
Table 80

Error code	H014		
Trouble	Accel potentiometer's power source is shortcut.		
Judging condition	The input voltage from accel potentiometer is 4.7 V or more.		
Symptom	LOW idling is fixed.		
Control in the event of failure	LOW idling is fixed.		
Returned in normal condition	It returns automatically in normal condition.		
Service diagnosis checking screen	Screen No.	2	H-1 ACCEL VOLT.
	Screen No.		
	Screen No.		

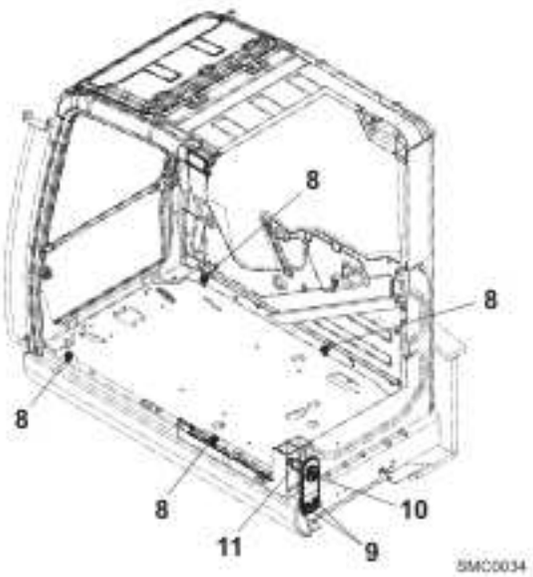
	Checking object	Checking contents and remedy
1	• Accel potentiometer SE-16	Measure the resistance between terminals of accel potentiometer. 1.6~2.0k Ω . Turn the potentiometer and measure resistance between signal and GND.
2	• Wiring between accel potentiometer and controller CN-402F CN-102F	Check wiring for possible failure according to the wiring checking procedure and repair it if necessary.
3	• Mechatro controller	Check that the error is corrected after replacement of controller.

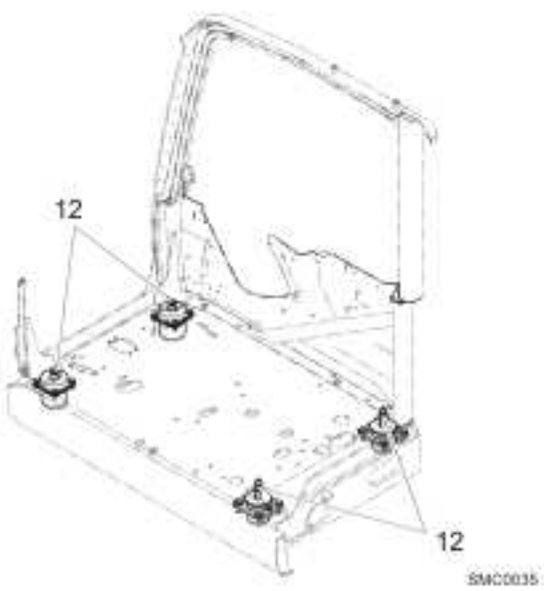
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7. Remove mechatro controller (**6**).
   1) Loosen 4 sems bolts (**7**) M6x25.
   2) With harnesses are connected condition, remove mechatro controller (**6**) and place it in front of it temporally.



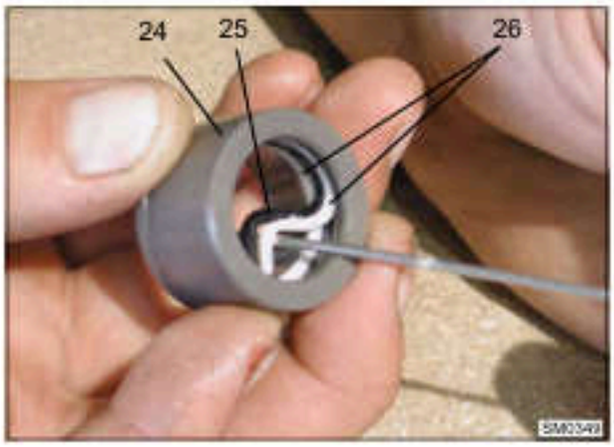
8. Remove cab attaching bolts.
   1) Loosen 4 capscrews (**8**) M12x35.
   2) Loosen 2 capscrews (**9**) M20x45, 1 nut (**10**) M20 and 1 pin (**11**) with insulation.
   3) Loosen 4 nuts (**12**) M16.





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29. Remove the O-ring seal (**25**) and the backup rings (**26**) from their seats in the free piston (**24**).

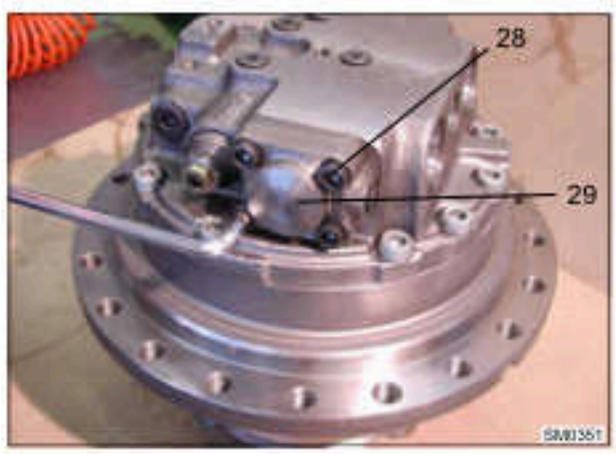


30. Remove the O-ring seal (**27**) from relief valve (**23**). Repeate the same steps for the 2nd relief valve disassembly.

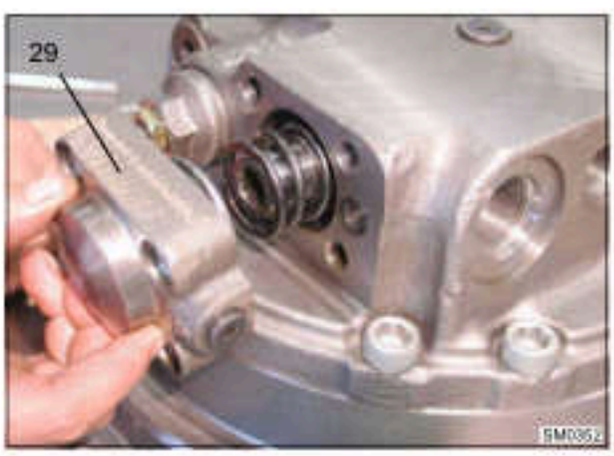


Disassembly of the counterbalance valve assy

31. Unscrew the nos. 4 socket head screws M12x40 (**28**), grade 12.9 of the first flanged plug assy (**29**) by a male hex head wrench.
    ⌐ : 10 mm

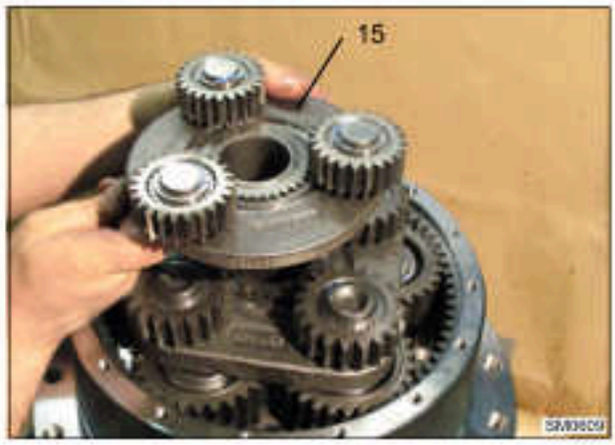


32. Take out the first flanged plug assy (**29**) and the spring seat.

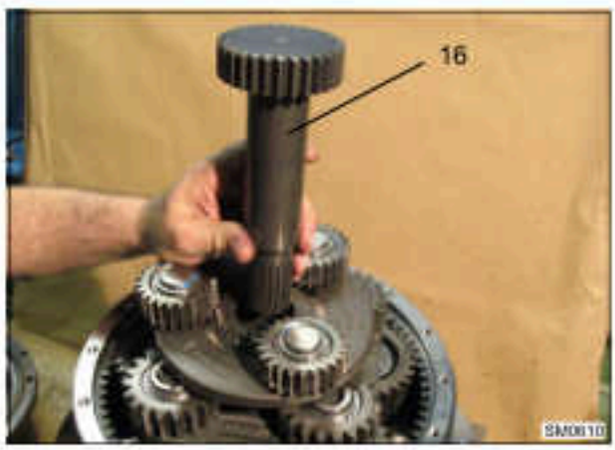


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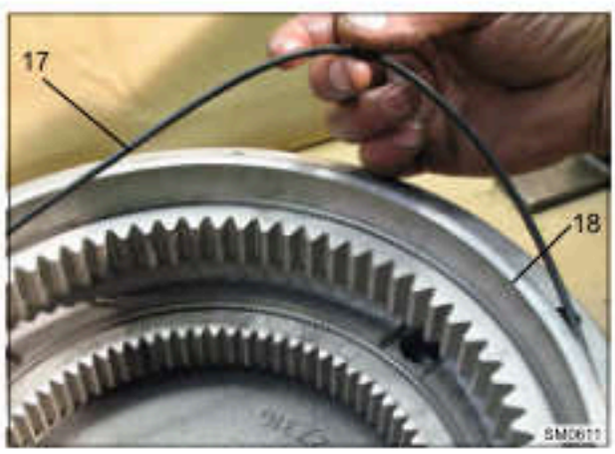
18. Insert the 1st reduction assembly (**15**).



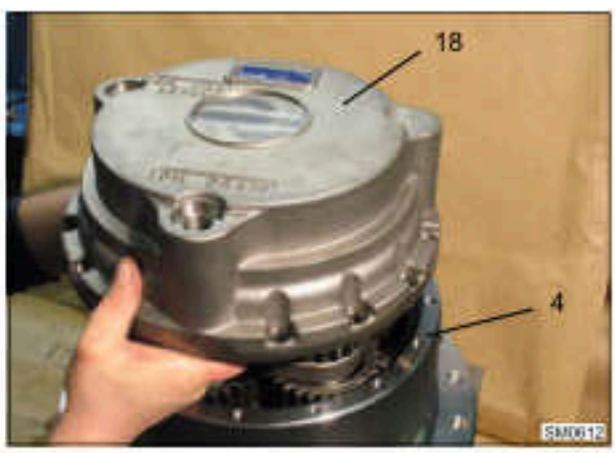
19. Insert the 1st reduction sun gear (**16**).



20. Assemble the O-ring (**17**) into its seat in the cover (**18**).



21. Place the end cover (**18**) on the gearbox housing (**4**).



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