SERVICE MANUAL

E140CSR
Crawler Excavator

Print No. 47381457A

NEW HOLLAND CONSTRUCTION

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(12)Remove panel assy (A2) and bracket (A14)

1. Remove a nut (A27) M12 and a sems bolt (A21) M12X30.
2. Remove panel assy (A2).

Weight : 11kg (24 lbs)

3. Remove 2 sems bolts (A20) M12X25.
4. Remove bracket (A14) together with bracket (A13).

Weight : 73kg (16 lbs)

Tools: Socket: 19mm

(13)Remove box (A28) and bracket (A10)

1. Remove 2 sems bolts (A20) M12X25.
2. Remove box (A28).
3. Remove 3 sems bolts (A21) M12X30.
4. Remove bracket (A10).

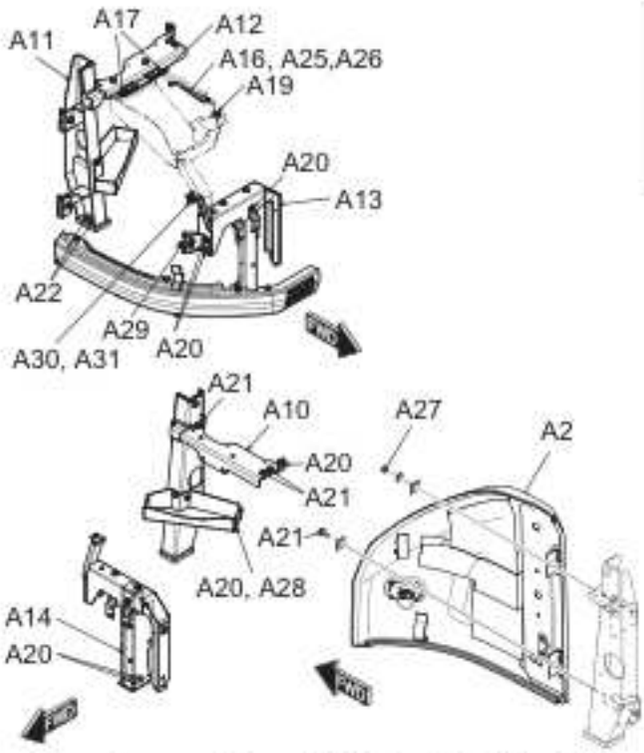
Tools: Socket: 19mm

(14)Remove bracket (A11)

1. Remove 2 sems bolts (A22) M12X40.
2. Remove bracket (A11).

Weight : 14kg (31 lbs)

Tools: Socket: 19mm



Removing panel assy (A2), box (A28), bracket (A14), bracket (A10) and bracket (A11)

(15)Remove cover assy (D1), (D2)

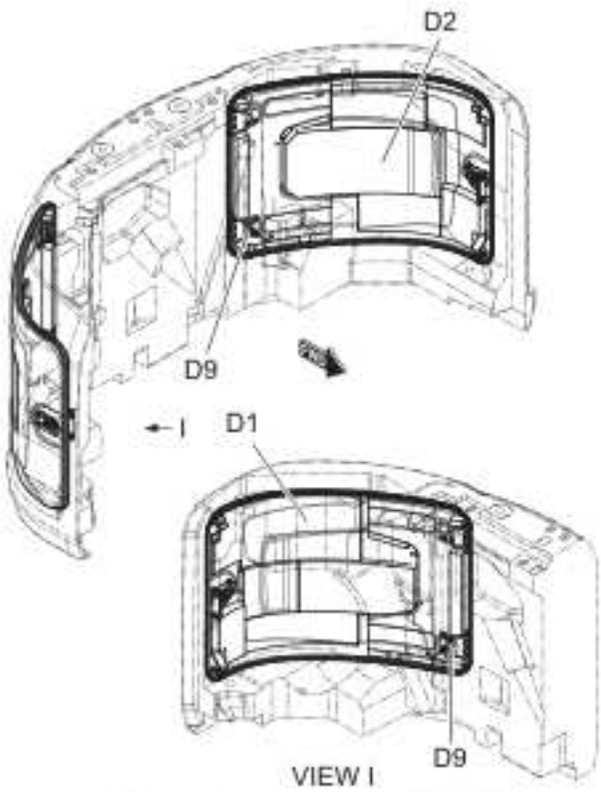
1. Remove 2 sems bolts (D9) M12X25 for attaching cover assy (D1), (D2).
2. Remove cover assy (D1).

Weight : 15kg (33 lbs)

3. Remove cover assy (D2).

Weight : 15kg (33 lbs)

Tools: Socket:19mm



Removing cover assy (D1), (D2)

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Table46-107

Error code	R184		
Trouble	Safety lock lever relay error		
Judging condition	The mechatro controller output line to safety lock lever relay is short-circuited with the power source.		
Symptom	Safety lock lever timer does not actuate.		
Control in the event of failure	Relay output is stopped.		
Returned in normal condition	When the power is OFF		
Service diagnosis checking screen	Screen No.	4	K-4 LOCK LEVER
	Screen No.		
	Screen No.		

	Checking object	Checking contents and remedy
1	• Safety lock lever relay R-26	When error R184 is cancelled after removing of safety lock lever relay, check relay unit for failure, replace it with new one if failed. When resistance between relays (1) and (2) is 0 Ω, it is in abnormal condition. 
2	• Wiring between safety lock lever relay and controller CN-109F, CN2-2 • Fuse & relay box E-1	When R184 is left displayed with the relay removed Check that no power 24V is produced on relay (-) line according to the wiring checking procedure and replace it if necessary. When no failure found after checking on wiring and R184 is left displayed. Replace fuse/relay box.
3	• Mechatro controller	Check that the error is corrected after replacement of controller.

Table46-108

Error code	R214		
Trouble	Safety relay error		
Judging condition	The mechatro controller output line to safety relay is short-circuited with the power source.		
Symptom	Safety relay does not actuate.		
Control in the event of failure	Relay output is stopped.		
Returned in normal condition	When the power is OFF		
Service diagnosis checking screen	Screen No.	4	K-2 SAFETY RLY
	Screen No.		
	Screen No.		

	Checking object	Checking contents and remedy
1	• Safety lock lever relay R-26	When error R214 is cancelled after removing of safety relay, check relay unit for failure, replace it with new one if failed. When resistance between relays (1) and (2) is 0 Ω, it is in abnormal condition. 
2	• Wiring between safety lock lever relay and controller CN-109F, CN2-2 • Fuse & relay box E-1	When R214 is left displayed with the relay removed Check that no power 24V is produced on relay (-) line according to the wiring checking procedure and replace it if necessary. When no failure found after checking on wiring and R214 is left displayed. Replace fuse/relay box.
3	• Mechatro controller	Check that the error is corrected after replacement of controller.

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2.1.2 Test at no-load

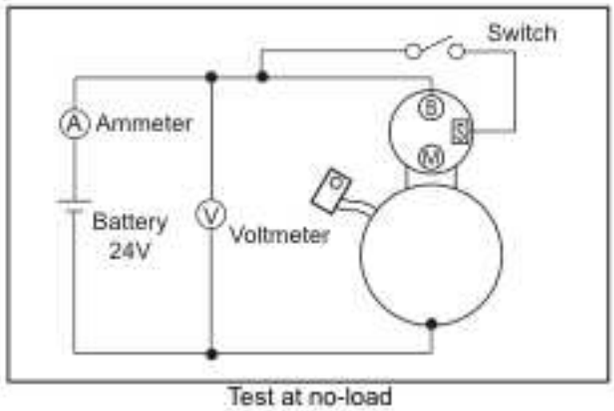
CAUTION

(a) Use a thick wire as possible and firmly tighten each terminal.

(b) Be careful that the pinion pops out during operation when measuring the rotation speed at the tip of the pinion.

(1) Connect the starter to the circuit as shown in the illustration.

(2) In normal condition, the pinion pops out when the switch is turned ON, and the starter rotates at more than the specified rotation speed. If the terminal voltage, current or rotation speed does not meet the standard, disassemble, inspect and repair the starter.



Test at no-load

Item		Standard value
Starter model number		32A66-11200
Nominal output		24 V - 3.2 kW
Non-load characteristics	Terminal voltage	23 V
	Current	80 A or less
	Rotation speed	2960 min $^{-1}$

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3.
Installing feedback lever (See Fig."Regulator exploded view")
Insert pin (897) of feedback lever (611) into the pin hole of the sleeve and fix the feedback lever with fulcrum plug (614).



Installing feedback lever (611)

CAUTION

Operate the feedback lever and make sure that it does not have much looseness and that it operates without catching.

4.
Installing plug
Place the prevention plug (616).



Installing plug (616)

5.
Installing spring seat, pilot spring and plunger (See Fig."Regulator exploded view")
Place spring seat (624), pilot spring (646) and plunger (627) into the hole in the sleeve.

6.
Installing cover (See Fig."Regulator exploded view")Attach cover (656) to casing (601) and fasten them together with socket bolts (402).



Installing spring seat (624),pilot spring (646) and plunger (627)

Note

The cover is fitted with adjusting screw (924) and hex nut (801).

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Note

When attach plug (324) to rear flange (301), insert carefully so as not to deform spring (328).

5. Temporarily tighten plug (324) (2 pcs) into rear flange (301).

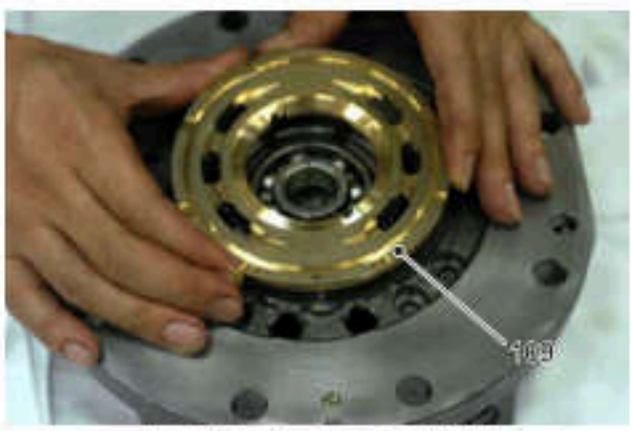
(15) Assembling rear flange mounted parts

1. Apply hydraulic fluid to ball bearing (150), and fit ball bearing (150) into rear flange (301).
2. Insert two parallel pins (341) in the pin holes of rear flange (301).
3. Apply grease to the mating face of timing plate (109) in contact with rear flange (301) of timing plate (109).



Installing ball bearing (150)

4. Fit timing plate (109) on rear flange (301) using parallel pins (341) as the guide.

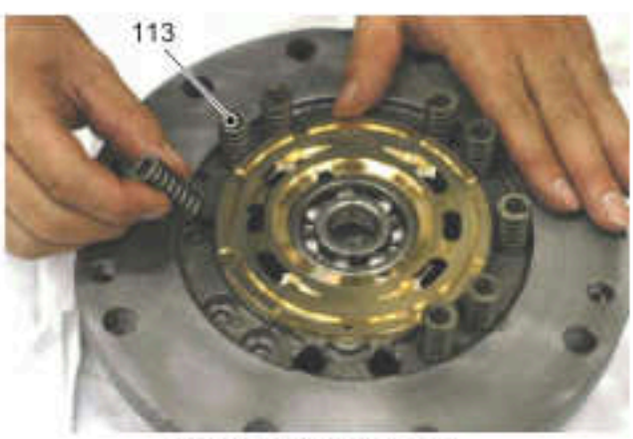


Installing timing plate (109)

Note

Fitting of timing plate (109) is carried out until timing plate (109) adheres to rear flange (301).
Adhesion prevents from dropping timing plate (109) from rear flange (301) when mounting rear flange (301) on spindle (2).

5. Mount ten springs (113) on the hole of rear flange (301).



Installing spring (113)

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