SERVICE MANUAL

E175C EVO
Crawler Excavator

Part number 48024891
English
May 2017

NEW HOLLAND CONSTRUCTION

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Applicable part	Inspection and measurement location	Permissible limit value	Repair, solution procedure
Swash plate (1-5)	Sliding surface	0.8 a degree of roughness. There is abnormal wear or scratching least **0.02 mm** (**0.00079 in**) deep on the sliding surface	Lap the sliding surface (No. 1000) If the scratching cannot be removed, replace the valve plate (1-21)
	Steel ball mounting section spherical hole	1.6 a degree of roughness. There is scratching at least **0.02 mm** (**0.00079 in**) deep on the ball surface or the surface is rough	Replace the swash plate
	Steel ball mounting section spherical hole	Ball depth **14.5 mm** (**0.5709 in**)	
Shaft (1-3)	Oil seal sliding section outer diameter	1.6 a degree of roughness. Aside from the oil seal lip sliding imprint, there is scratching at least **0.02 mm** (**0.0008 in**) deep or the surface is rough	Replace the shaft
	Cylinder block bonding section spline	Over-pin diameter **47.380 mm** (**1.865354 in**) Diameter of measurement pin **Ø3.0 mm** (**0.11811 in**) or breaking damage is occurring	
	Drive gear bonding section spline	Diameter between parts **30.498 mm** (**1.200709 in**) Diameter of measurement pin **Ø3.33 mm** (**0.13110 in**) or breaking damage is occurring	
Brake piston (1-15)	Exterior dimensions	Height **38.2 mm** (**1.5039 in**)	Replace the brake piston
	Sliding surface	2.5 a degree of roughness	
	Exterior	There is scratching at least **0.02 mm** (**0.00079 in**) deep or the surface is rough	
Disk plate (1-139)	Exterior dimensions	Thickness **3.2 mm** (**0.1260 in**)	Replace the disk plate
	Exterior	There is deep scratching or friction material is peeling off	
Ball bearing (1-8) Ball bearing (1-9)	Rotation surface	Flaking or pressure imprinting is occurring	Replace the ball bearing
	Operation	There are rotation abnormalities (abnormal noises, rotation unevenness)	
Piston assembly (1-7)	Shoe sliding surface	1.6 a degree of roughness or the surface is rough or there is scratching at least **0.02 mm** (**0.00079 in**) deep	Lap the shoe sliding surface (No. 1000) If the scratching cannot be removed, replace using the flange holder kit
	Piston outer diameter	1.2 a degree of roughness or the surface is rough or there is scratching at least **0.02 mm** (**0.00079 in**) deep	Replace using the flange holder kit
	Piston outer diameters and flange holder (1-1) inner diameters	Gap **0.040 mm** (**0.0016 in**)	
	Shoe ball backlash	**1.0 mm** (**0.0394 in**) of backlash	

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Pedal control - Sectional view

It is not easy to discover trouble locations.

A few problems that may occur are listed in the " **Pedal control - Troubleshooting (35.356)**".

Repairs are difficult, so refer to the possible causes and solutions in **Pedal control - Troubleshooting (35.356)**.

Refer to **Pedal control - Troubleshooting (35.356)** for general symptoms, suggested causes, and also solutions.

However, the cause of machine problems are often not rooted in just a single part. Problems are often due to the relationship of one part with another.

Also keep in mind that solutions other than those listed in the table may sometimes be necessary.

The numbers in parentheses after the part names are the codes indicated in Fig.3 – "Remote control valve assembly cross-section diagram"

Also, the table below does not include all possible causes and countermeasures.

Further investigation of problems and causes should be done by an experienced and qualified repair person, as necessary.

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Instrument cluster - Static description - Password setting

Summary

Set the anti-theft password.

Configuration

- Monitor: Connected to Computer B
- Anti-theft setting knob: On the cab main harness

Operation explanation

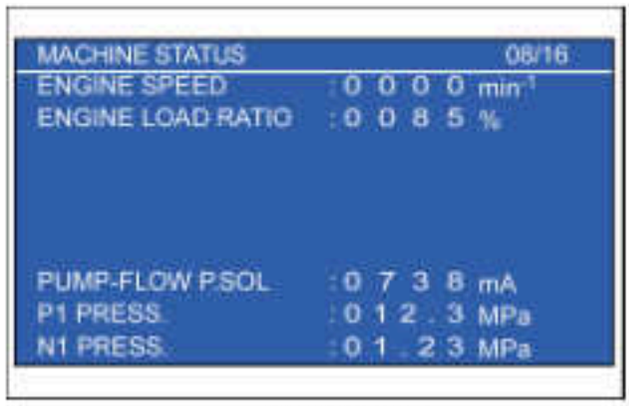
1. With the key "OFF", connect the anti-theft setting knob.
2. After connecting the knob, when you switch "ON" the key, the system displays the password setting screen.
3. After setting the 4-digit password, if you switch the key "ON→OFF→ON→OFF", the system switches "ON" the anti-theft function.
   - All the key switching operations should be done within **2 s**.
4. When the anti-theft function comes "ON", the monitor sets off the buzzer and the key icon is displayed.

* See anti-theft (password type).

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8. Engine

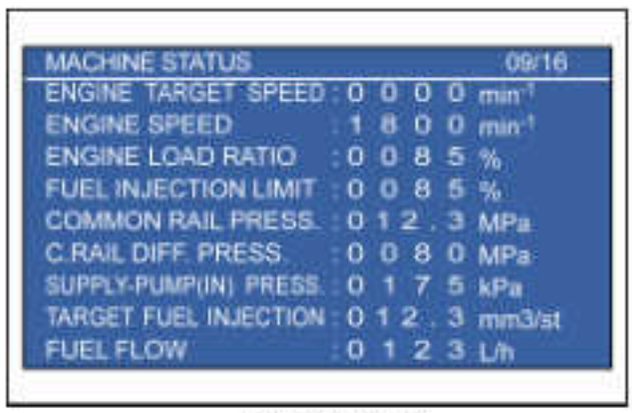
ENGINE SPEED	min^{-1} (rpm)	Engine speed
ENGINE LOAD RATIO	%	Engine load ratio
PUMP-FLOW P.SOL.	mA	Actual milli-amp for flow proportional valve
P1 PRESS.	MPa (psi)	P1 pressure
N1 PRESS.	MPa (psi)	N1 pressure



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9. Engine

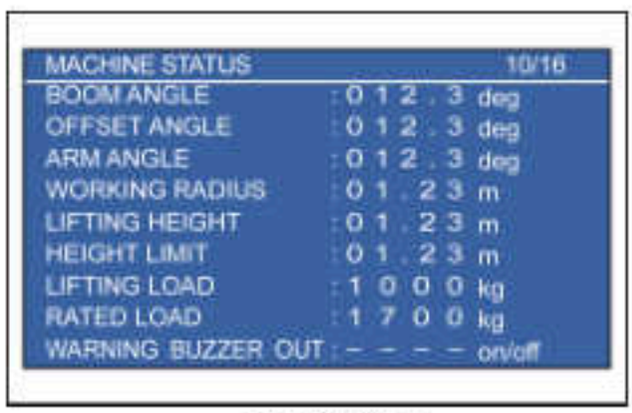
ENGINE TARGET SPEED	min^{-1} (rpm)	Engine target speed
ENGINE SPEED	min^{-1} (rpm)	Engine speed
ENGINE LOAD RATIO	%	Engine load ratio
FUEL INJECTION LIMIT	%	Fuel injection quantity limit level
COMMON RAIL PRESS.	MPa (psi)	Common rail pressure
C. RAIL DIFF. PRESS.	MPa (psi)	Common rail differential pressure
SUPPLY-PUMP (IN) PRESS.	kPa (psi)	Supply pump inlet pressure
TARGET FUEL INJECTION	mm^3 /st	Target fuel injection quantity
FUEL FLOW	L/h	Fuel flow



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10. Work radius and height

BOOM ANGLE	deg	Boom angle
OFFSET ANGLE	deg	Offset angle
ARM ANGLE	deg	Arm angle
WORKING RADIUS	m (ft.)	Work radius
LIFTING HEIGHT	m (ft.)	Hanging work height
HEIGHT LIMIT	m (ft.)	Hanging height limit
LIFTING LOAD	kg (lb)	Actual load
RATED LOAD	kg (lb)	Rated load
WARNING BUZZER OUT	on/off	Warning buzzer output

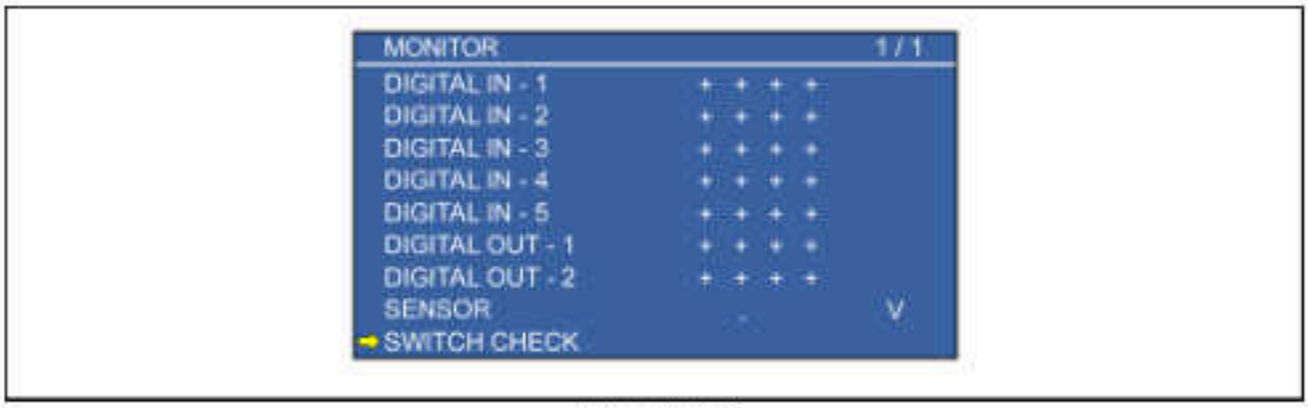


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Monitor

Digital In/Out

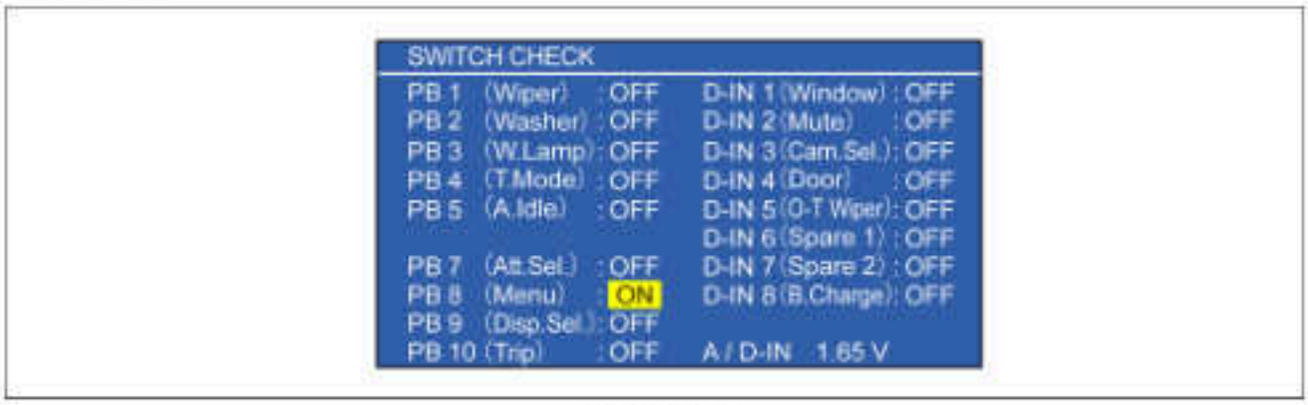


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++++	ON
----	OFF

DIGITAL IN-1	Front window limit switch
DIGITAL IN-2	Radio mute switch
DIGITAL IN-3	Camera switch
DIGITAL IN-4	Door limit switch
DIGITAL IN-5	Wiper switch
DIGITAL OUT-1	Wiper - Intermittent
DIGITAL OUT-2	Wiper - Continuous
SENSOR	-
SWITCH CHECK	Moves to the switch check screen

Switch check



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PB1 (Wiper)	Wiper switch
PB2 (Washer)	Window washer switch
PB3 (W.Lamp)	Working light switch
PB4 (T.Mode)	Travel speed switch
PB5 (A.Idle)	Auto idle/idle stop switch
PB7 (Att. Sel.)	Attachment selector switch
PB8 (Menu)	Menu switch
PB9 (Disp.Sel.)	Camera switch
PB10 (Trip)	Camera selector switch
D-IN1 (Window)	Front window limit switch
D-IN2 (Mute)	Radio mute switch

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