NEW HOLLAND HW305 HW305S

SERVICE MANUAL

HW325 Self-Propelled Windrower



87576230

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The following pages are the collation of the contents pages from each section and chapter of the HW305, HW305S and HW325 Repair manual. Complete Repair part # 87576230.

The sections used through out all New Holland product Repair manuals may not be used for each product. Each Repair manual will be made up of one or several books. Each book will be labeled as to which sections are in the overall Repair manual and which sections are in each book.

The sections listed above are the sections utilized for the HW305, HW305S and HW325 Self-Propelled Windrowers.

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SECTION 00 - GENERAL INFORMATION

BOOK 1 - 87576231

Chapter 1 - General Information

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SECTION 10 - ENGINE

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Chapter 1 - Engine

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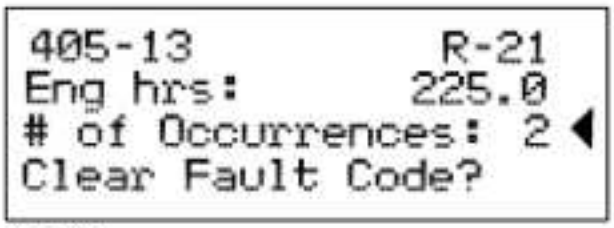
Tractor	HW305	HW305S	HW325
Drive speeds	single	single	dual
Speed range			
Option A			
Low	0–17.9 kph (0–11.1 mph)	0–17.9 kph (0–11.1 mph)	N/A
High	N/A	N/A	N/A
Option B			
Low	0–19.8 kph (0–12.3 mph)	0–19.8 kph (0–12.3 mph)	0–17.7 kph (0–11 mph)
High	N/A	N/A	0–24.1 kph– (0–15 mph)
Option D–radial			
Low	0–20.3 kph (0–12.6 mph)	0–20.3 kph (0–12.6 mph)	0–18.2 kph (0–11.3 mph)
High	N/A	N/A	0–24.9 kph (0–15.5 mph)
Tires–drive			
Option A (14 ply)	16.9 x 24 turf R3 or cleat R4	16.9 x 24 turf R3 or cleat R4	N/A
Option B (12 ply)	18.4 x 26 turf R3 or cleat R4	18.4 x 26 turf R3 cleat R4	18.4 x 26 turf R3 cleat R4
Option D	18.4 R26 R1	18.4 R26 R1	18.4 R26 R1
Tires–rear			
Option X (6 ply)	31 x 13.5–15 in. Ribbed implement	31 x 13.5–15 in. Ribbed implement	N/A
Option Y	N/A	N/A	14 x 16.1
Tractor weight	4643 kg (10,235 lbs.)	4643 kg (10,235 lbs.)	4966 kg (10,950 lbs.)
Engine oil w/ Filter	10.4L (11 qts.)	10.4L (11 qts.)	10.4L (11 qts.)
Final drive	0.89L (0.94 qts.)	0.89L (0.94 qts.)	0.89L (0.94 qts.)
Flywheel gearbox	2.36L (2.5 qts.)	2.36L (2.5 qts.)	2.36L (2.5 qts.)

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FAULT CODE FORMAT (SPN/FMI CODES)

The fault codes appear on the text display as a two part code. The first part is a three digit Suspect Parameter Number (SPN) followed by a two digit Failure Mode Identifier (FMI) code.

The SPN identifies the system or component that has failed and the FMI identifies the type of failure.



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1

HW325

For example:

SPN 405 indicates a failure in the pintel arm position sensor (R-21) and FMI 13 indicates out of calibration.



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2

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SPN/FMI CODE CHARTS

Following is a table of SPN and FMI codes and their description. The SPN codes are separated by systems: *Engine, Fuel, Hydraulics, Propulsion and PTO*.

Refer to the troubleshooting section of this chapter for diagnostic procedures.

FMI Codes

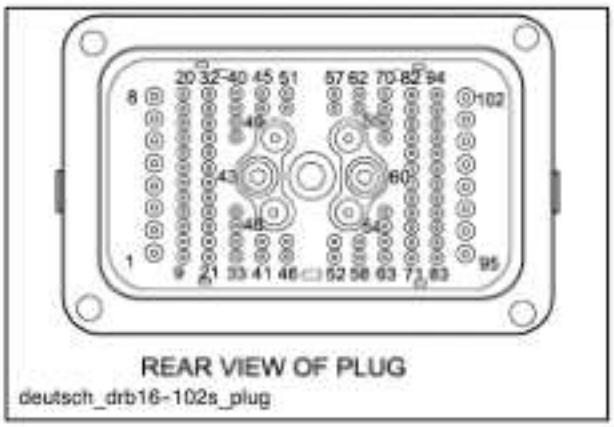
FMI	DESCRIPTION
00	Data is valid but above the normal operational range
01	Data is valid but below the normal operational range
02	Data erratic, intermittent or incorrect
03	Voltage above normal, or shorted to high source
04	Voltage below normal, or shorted to low source
05	Current below normal or open circuit
06	Current above normal or grounded circuit
07	Mechanical system not responding or out of adjustment
08	Abnormal frequency or pulse width or period
09	Abnormal update rate
10	Abnormal rate of change
11	Failure code not identifiable
12	Bad intelligent device or component
13	Out of calibration
14	Special instructions
15	Data valid but above normal operation range least severe level
16	Data valid but above normal operation range moderate level
17	Data valid but below normal operation range least severe level
18	Data valid but below normal operation range moderate level
19	Received network data in error

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STANDARD WIRE HARNESS CONNECTOR INFORMATION (HW325)

FM WIRE HARNESS CONNECTORS

(X044) FM to CM Plug		
Deutsch #DRB16-102SAE-L018		
Cav	**Wire**	**Circuit reference**
01	FM058-WH	Start motor/solenoid M-08
02	FM588-PU	Splice 091, RH flashing lights
03	-	
04	-	
05	FM489-PU	Rear work lights, RH stubble light
06	FM581-PU	Splice 090, LH flashing lights
07	FM1082-PU	Splice 082, turn/brake tail-lights
08	FM887-OR	LH service light receptacle J-07
09	FM112-YE	Alternator G-01 terminal W
10	FM827-PK	+5 ref voltage SEN
11	FM698-BL	Signal ground
12	FM344-YE	Ground speed sensor B-03
13	FM049-YE	Engine coolant temperature sensor R-03
14	FM045-WH	Fuel solenoid relay K-02
15	-	
16	FM411-WH	RH header raise solenoid L-06
17	FM424-YE	RH header flotation proportional solenoid L-01
18	FM440-WH	Header PTO fwd solenoid L-30
19	FM443-GR	Header PTO rev solenoid L-31
20	FM478-YE	Hydraulic oil temp switch S-29
21	FM486-PU	LH turn/brake taillight E-16
22	FM360-WH	Ground speed high solenoid L-23
23	FM394-OR	12V ignition, sensor switches fuse F-36
24	FM186-WH	Screen cleaner motor M-09
25	FM353-WH	Propulsion fwd solenoid L-14
26	FM354-YE	Propulsion fwd solenoid L-14
27	FM355-GR	Propulsion rev solenoid L-15
28	FM356-YE	Propulsion rev solenoid L-15
29	FM346-YE	Propulsion cylinder position sensor R-23



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4-Line Display - Engine Coolant Temperature Scale

The first segment of the bar graph will appear when the coolant temperature is less than 66°C (150°F).

Coolant: C□ H

The second segment of the bar graph will appear when the coolant temperature is 66 – 78°C (150 – 174°F).

Coolant: C□□ H

The third segment of the bar graph will appear when the coolant temperature is 79 – 90°C (175 – 194°F).

Coolant: C□□□ H

The fourth segment of the bar graph will appear when the coolant temperature is 91 – 98°C (195 – 209°F).

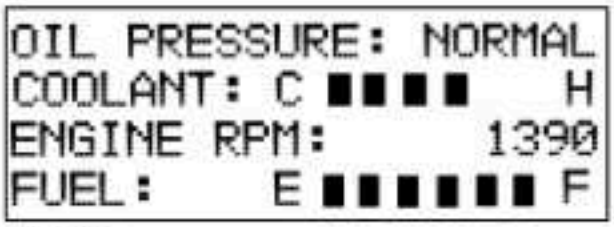
Coolant: C□□□□ H

The fifth segment of the bar graph will appear when the coolant temperature is 99 – 107°C (210 – 225°F).

Coolant: C□□□□□ H

The sixth segment of the bar graph will appear when the coolant temperature is equal to or greater than 107°C (225°F).

Coolant: C□□□□□□H

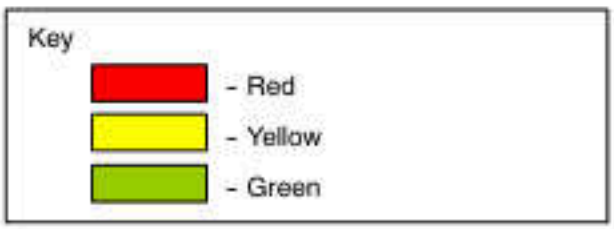


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A-Pillar Display – Engine Coolant Temperature Scale

	°C		°F
	>110.0		>230
	107.2-110.0		225-230
	103.3-106.6		218-224
	98.8-102.7		210-217
	97.7-98.3		208-209
	96.1-97.2		205-207
	93.8-95.5		201-204
	91.1-93.3		196-200
	88.3-90.5		191-195
	85.5-87.7		186-190
	82.2-85.0		180-185
	78.8-81.6		174-179
	75.5-78.3		168-173
	72.2-75.0		162-167
	68.8-71.6		156-161
	65.5-68.3		150-155
	61.6-65.0		143-149
	57.2-61.1		135-142
	52.7-56.6		127-134
	47.2-52.2		117-126



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