SERVICE MANUAL

H8040

Self-Propelled Windrower

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H8040 REPAIR MANUAL
COMPLETE CONTENTS

SECTION 00 - GENERAL INFORMATION 2

SECTION 10 - ENGINE 3

SECTION 25 - FRONT MECHANICAL DRIVE 5

SECTION 29 - HYDROSTATIC TRANSMISSION 6

SECTION 33 - BRAKES AND CONTROLS 10

SECTION 35 - HYDRAULIC SYSTEMS 11

SECTION 44 - REAR AXLE 16

SECTION 50 - CLIMATE CONTROL 18

SECTION 55 - ELECTRICAL SYSTEMS 22

SECTION 58 - HEADER ATTACHMENTS 39

SECTION 88 - OPTIONAL EQUIPMENT 42

SECTION 90 - PLATFORM, CAB AND DECALS 43

The following pages are the collation of the contents pages from each section and chapter of the H8040 Repair manual. Complete Repair part # 87742969.

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 H8040 Self-Propelled Windrowers.

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SECTION 00 - GENERAL INFORMATION

BOOK 1 - 87742970

Chapter 1 - General Information

CONTENTS

Section	Description	Page
00 000	Precautionary Statements	2
	Safety	3
	General Safety Information	5
	Protecting the Electronic/Electrical Systems During Charging or Welding	7
	Introduction	8
	About Improvements	8
	Product Identification Numbers (PIN)	9
	Engine PIN Number	9
	Company Policy	10
	Parts and Accessories	10
	Lubrication	10
	Minimum Hardware Tightening Torques	11
	Installation of Adjustable Fittings in Straight Thread O-ring Bosses	13
	Standard Torque Data for Hydraulic Tubes and Fittings	13
	Pipe Thread Fitting Torque	14
	Installation of ORFS (O-ring Flat Faced) Fittings	14
	Specifications	15

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SECTION 10 - ENGINE

BOOK 1 - 87742970

Chapter 1 - Engine

CONTENTS

Section	Description	Page
	Description of Operation	2
	Specifications	2
	Overhaul	3
	Engine	3
	Removal	3
	Installation	9
	Troubleshooting	15

SECTION 10 - ENGINE

BOOK 1 - 87742970

Chapter 2 - Fuel System

CONTENTS

Section	Description	Page
	Fuel System	2
	Injection System Bleeding	2
	Fuel Tanks	3
	Removal	3
	Install	7

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	H8040
Tires	
Front Option A	18.4 x 26 turf R3 12 ply
Front Option B	18.4 x 26 cleat R4 12 ply
Front Option C	18.4R26 cleat R1 radial
Front Option D	21L x 28 cleat R4 10 ply
Front Option E	16.9 x 28 cleat R4 12 ply
Maximum Speed - Minimum Factory Setting	
Option A	
Low	0 - 17.1 Kph (0 - 10.6 Mph)
High	0 - 25.4 Kph (0 - 15.8 Mph)
Option B	
Low	0 - 17.1 Kph (0 - 10.6 Mph)
High	0 - 25.4 Kph (0 - 15.8 Mph)
Option C	
Low	0 - 17.5 Kph (0 - 10.9 Mph)
High	0 - 26.2 Kph (0 - 16.3 Mph)
Option D	
Low	0 - 17.9 Kph (0 - 11.1 Mph)
High	0 - 26.7 Kph (0 - 16.6 Mph)
Option E	
Low	0 - 16.7 Kph (0 - 10.4 Mph)
High	0 - 24.9 Kph (0 - 15.5 Mph)
Dimensions	
Length	
With lift arms	5760 mm (226.8 in)
Without lift arms	5213 mm (205 in)
Wheel base	3494 mm (137.6 in)
Height	
Option A	3395 mm (133.7 in)
Option B	3387 mm (133.4 in)
Option C	3415 mm (134.5 in)
Option D	3426 mm (134.9 in)
Option E	3385 mm (133.3 in)

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TROUBLESHOOTING

ENGINE FAULT CODES

FAULT CODE – 101-03 Oil Pressure Switch Shorted To High Source

Context:
The Oil Pressure switch (S-74) is a normally closed switch which opens at **50 psi**. If pressure drops below **50 psi**, the switch will close and send a ground signal to the Main Control Module (A-15) via **connector X002** pin 27. This fault occurs when the switch circuit is open prior to engine start.

Cause:
The Oil Pressure switch (S-74) circuit appears open at the main control module (A-15) prior to engine start.

Possible failure modes:

1. Switch wiring open.
2. Switch failure (stuck open).
3. Controller internal failure.

Solution:

1. Enter the Dealer Setup – "Diagnostic Tests" menu. Select the "Inputs", "Engine" sort menu, and select "Eng Oil Press" to observe the state.

   The static operating state for the "Eng Oil Press" switch is **Off** (switch closed) when the engine is off.

   A. If the switch state is **On,** continue with Step **2**.

   B. If the switch state is **Off,** the wire may not be open at this time. Continue troubleshooting at Step **4**.

2. Disconnect the Oil Pressure switch (S-74) main frame (FM) harness **connector X514**. Observe the switch state on the display. Use a jumper wire to ground pin A of **connector X514**.

   A. If the switch state remains **On**, continue with Step **3**.

   B. If the switch state returns to **Off**, the fault is in the switch. Replace oil pressure switch S-74. Continue troubleshooting at Step **4**.

3. Disconnect the cab main (CM) harness from the main frame (FM) harness at **connector X044**. Observe the switch state on the display. Use a jumper wire to ground pin 52 of CM harness **X044**.

   A. If the switch state remains **On**, the open is in the CM harness between **connector X044** pin 52 and **connector X002** pin 27 wire 1041 yellow. Locate the open and repair. If no open can be found, replace the main control module. Continue troubleshooting at Step **4**.

   B. If the switch state returns to **Off**, the open is in the FM harness between **connector X044** pin 52 and **connector X514** pin A wire 1041 yellow. Locate the open and repair. Continue troubleshooting at Step **4**.

4. Visually inspect the harness and connectors for damage, bent or dislocated pins, corroded terminals or broken wires.

   A. Repair any damage found during visual inspection.

   B. If no damage is found, erase the fault code and continue operation.

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Wire Harness Routing

Refer to Chapter 12 – Wiring Harnesses for a pictorial view of wire harness routing on the Windrower.

Circuit Identification

All wires in the schematic are labeled to indicate the specific harness they are in, the circuit number, the wire color, and the wire size indicated in square mm cross-section. On the Windrower, the circuit number is printed on each wire approximately every 50 mm (2").

Wire Size Chart	
Square MM	AWG
0.5	20
0.8	18
1.0	16
2.0	14
3.0	12
5.0	10
8.0	8
13.0	6
19.0	4
32.0	2
40.0	1

The wire colors are also used to identify the function of the circuit, depending on the type of component that the wire is connected to. The following wire colors are used for the Windrower wiring harnesses.

Identifier	Color	Function	Specific Application
RD	Red	Battery Voltage	Unswitched power circuits
BK	Black	Chassis Ground	Physically grounded to frame
OR	Orange	Power After Ignition	Switched power circuits
YE	Yellow	Signal Wires	Control module-generated for designated circuits
PU	Purple	Lighting	Turn signals, flashing, dome, brake, road, work, etc.
GR	Gray	Decreasing Actuation	Operation of linear actuators
WH	White	Increasing Actuation	Operation of linear actuators
PK	Pink	Reference voltage (sensors)	Windrow shields position; Engine boost temperature/ pressure; propulsion cylinder position
BL	Blue	Printed circuit ground	Ground-seeking thru specific electronic module
YE	Yellow	CAN Hi	Controller Area Network – Signal Carrying Wire
GR	Green	CAN Lo	Controller Area Network – Signal Carrying Wire
CL	Clear-Shielded	Data Circuit	Main Control Module (XCM)
DR	Bare-Shielded	Drain (Ground)	Part of cab roof harness for HVAC
T/Y	Tan/Yellow	HVAC Harness	Low pressure switch circuit
T/GY	Tan/Gray	HVAC Harness	Low pressure switch circuit

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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).

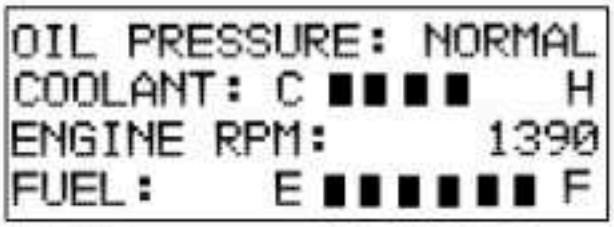
Coolant: C□□□□□ H

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

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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16

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