SERVICE MANUAL

H9870 / H9880

Bale Wagon

Part number 47918070
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MidWestTech | New Holland H9870, H9880 Bale Wagon Service Manual | Publication 47918070

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Problem	Possible Cause	Correction
	Speed sensor or circuit malfunction. Check for Diagnostic Trouble Codes (DTCs).	Software required. Contact your local authorized Allison dealer for additional information.
	Main pressure low.	Refer to the Low Pressure section of the troubleshooting charts. Software required. Contact your local authorized Allison dealer for additional information.
	Transmission fluid low.	Check fluid level and add fluid, as needed.
	Inoperative throttle position sensor.	Inspect the throttle position circuits and repair as needed.
	TCC clutch inoperative.	Software required. Contact your local authorized Allison dealer for additional information.
Transmission slipping and clutch noisy in ranges 1, 2, 3, and 4 only.	C1 clutch slipping.	Software required. Contact your local authorized Allison dealer for additional information.
Transmission slipping and clutch noisy in ranges 4 and 5 only.	C2 clutch slipping.	Software required. Contact your local authorized Allison dealer for additional information.
Transmission slipping and clutch noisy in ranges 3, 5, and Reverse only.	C3 clutch slipping.	Software required. Contact your local authorized Allison dealer for additional information.
Transmission slipping and clutch noisy in range 2 only.	C4 clutch slipping.	Software required. Contact your local authorized Allison dealer for additional information.
Transmission slipping and clutch noisy in ranges 1 and Reverse only.	C5 clutch slipping.	Software required. Contact your local authorized Allison dealer for additional information.
Low or no main pressure in all ranges.	Transmission fluid low.	Check fluid level and add fluid, as needed.
	Transmission filter clogged.	Service transmission and replace both transmission filters.
	Suction filter.	Inspect the suction filter and replace as needed. Refill transmission fluid as needed.
	Main pressure regulator valve sticking.	Software required. Contact your local authorized Allison dealer for additional information.
	Leaking solenoid.	Inspect and replace the leaking solenoid. Software required. Contact your local authorized Allison dealer for additional information.
	G solenoid failure.	Inspect and replace leaking solenoid. Software required. Contact your local authorized Allison dealer for additional information.
	Pressure regulator valve spring.	Software required. Contact your local authorized Allison dealer for additional information.
	Valve body leaking.	Software required. Contact your local authorized Allison dealer for additional information.
	Suction circuit failure.	Software required. Contact your local authorized Allison dealer for additional information.
	Faulty oil pump.	Software required. Contact your local authorized Allison dealer for additional information.
Low main pressure in certain ranges and normal pressure in other ranges.		Software required. Contact your local authorized Allison dealer for additional information.

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Hydraulic systems - Hydraulic schema – Component identification

Item	Description
(1)	Bale loader lift cylinder
(2)	Auto-tie spikes cylinder
(3)	Auxiliary first table cylinder (H9880 only)
(4)	Primary first table cylinder
(5)	Cross-conveyor motor
(6)	Bale loader motor
(7)	Suction screens
(8)	Hydraulic oil filter
(9)	Push-off cylinder
(10)	Power steering gear pump, **25 L/min** (**6.6 US gpm**) @ **2300 RPM**, **10.8 cm³/rev** (**0.66 in³/rev**)
(11)	Main gear pump, **51.5 L/min** (**13.6 US gpm**) @ **2300 RPM**, **22.5 cm³/rev** (**1.37 in³/rev**)
(12)	Parking brake, **7929 kPa** (**1150 psi**) minimum release pressure
(13)	Piston pump, **103.7 L/min** (**27.4 US gpm**) @ **2300 RPM**, **45.1 cm³/rev** (**2.75 in³/rev**), **14134 kPa** (**2050 psi**), **1379 kPa** (**200 psi**) standby
(14)	Load rack cylinder
(15)	Second table cylinder
(16)	Rolling rack cylinder
(17)	Accumulator, **0.5 L** (**0.132 US gal**), **3103 kPa** (**450 psi**) pre-charge
(18)	Load holding valve
(19)	Relief valve, **20684 kPa** (**3000 psi**)
(20)	Relief valve, **11032 kPa** (**1600 psi**)
(21)	Cooling fan
(22)	Fan reversing valve
(23)	Load rack cylinder
(24)	Push-off cylinder
(25)	Brake booster
(26)	Power steering pump
(27)	Gear pump manifold
(28)	Piston pump manifold
(29)	Hydraulic reservoir

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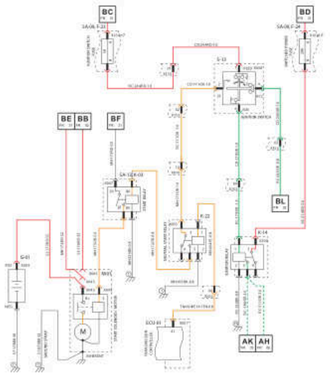
SOLENOIDS					
COMPONENT	DESCRIPTION	CONNECTOR	SPECS	LOCATION	FRAME
L-32	Fuel shut off	**X022**		Fuel injection pump	**Wiring harnesses - Electrical schematic sheet 03 (55.100)**
L-33	Torque converter clutch (TCC)	**X004**		Transmission	**Wiring harnesses - Electrical schematic sheet 06 (55.100)**

MOTORS					
COMPONENT	DESCRIPTION	CONNECTOR	SPECS	LOCATION	FRAME
M-01	Starter	**X045**		Engine compartment	**Wiring harnesses - Electrical schematic sheet 01 (55.100)**
M-02	Heater	**X104**		Right console	**Wiring harnesses - Electrical schematic sheet 12 (55.100)**
M-03	AC blower	**X034 X105**		Overhead console	**Wiring harnesses - Electrical schematic sheet 12 (55.100)**
M-04	Windshield wiper	**X111**		Cab roof	**Wiring harnesses - Electrical schematic sheet 11 (55.100)**
M-05	Brake boost	**X115**		Master cylinder	**Wiring harnesses - Electrical schematic sheet 09 (55.100)**
M-07	Axle range	**X136**		Rear axle - LH	**Wiring harnesses - Electrical schematic sheet 08 (55.100)**

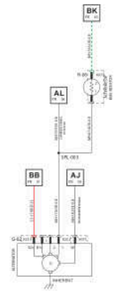
CIRCUIT BREAKERS					
COMPONENT	DESCRIPTION	CONNECTOR	SPECS	LOCATION	FRAME
Q-01	Control	X228	**50 A**	Rear electrical panel	**Wiring harnesses - Electrical schematic sheet 31 (55.100)**
Q-02	Brake boost	X166	**25 A**	Right console electrical panel	**Wiring harnesses - Electrical schematic sheet 09 (55.100)**

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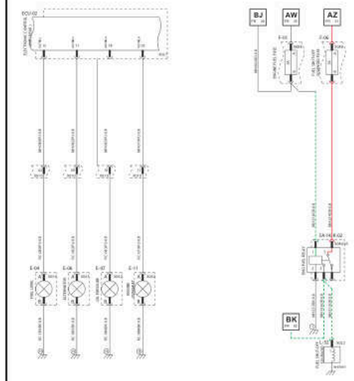
ENGINE STARTING SYSTEM



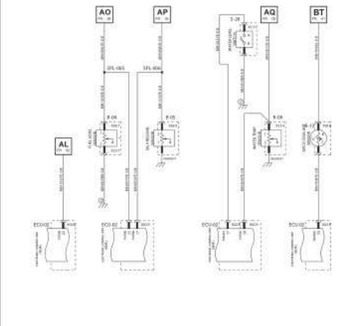
CHARGING SYSTEM



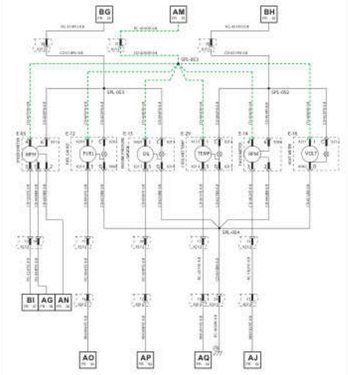
ENGINE – FUEL, INDICATOR LIGHTS



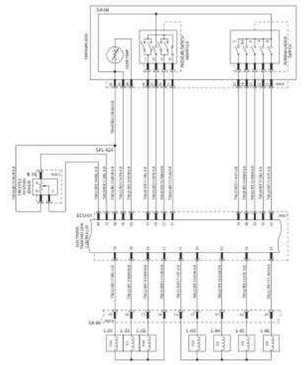
ENGINE SENSORS



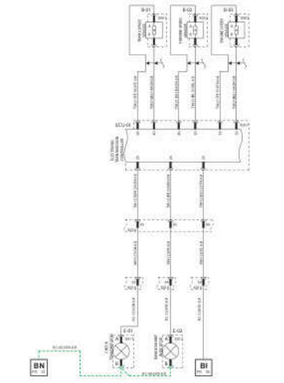
INSTRUMENT GAUGES



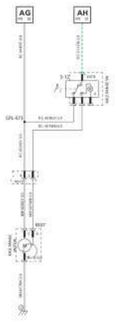
TRANSMISSION



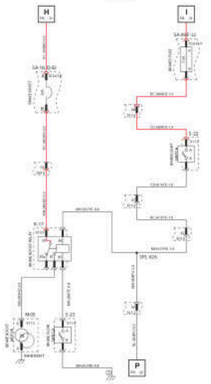
TRANSMISSION



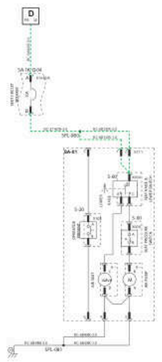
REAR AXLE RANGE



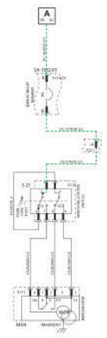
BRAKES



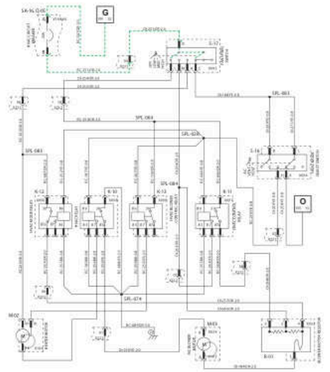
SEAT SYSTEM



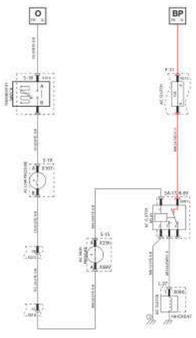
WIPER SYSTEM



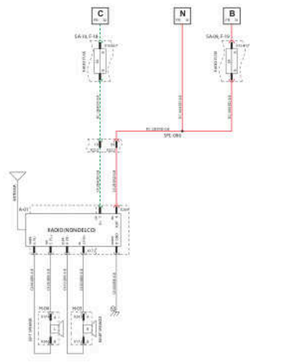
HVAC SYSTEM



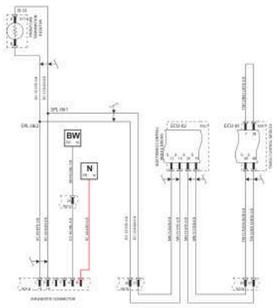
AIR CONDITIONING SYSTEM



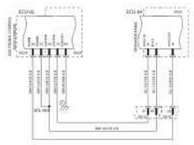
RADIO



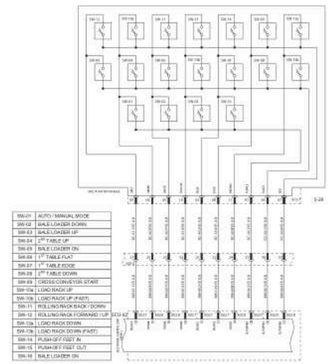
CAN COMMUNICATIONS



COMMUNICATIONS

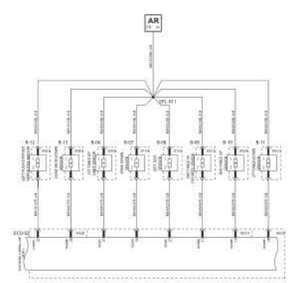


MULTI-FUNCTION HANDLE

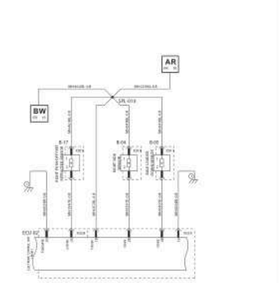


SW-01	AUTO / MANUAL MODE
SW-02	BALE LOADER DOWN
SW-03	BALE LOADER UP
SW-04	2ND TABLE UP
SW-05	BALE LOADER ON
SW-06	1ST TABLE FLAT
SW-07	1ST TABLE ROPE
SW-08	2ND TABLE DOWN
SW-09	CROSS CONVEYOR START
SW-10a	LOAD RACK UP
SW-10b	LOAD RACK UP (FAST)
SW-11	ROLLING RACK BACK / DOWN
SW-12	ROLLING RACK FORWARD / UP
SW-13a	LOAD RACK DOWN
SW-13b	LOAD RACK DOWN (FAST)
SW-14	PUSH OFF FEET IN
SW-15	PUSH OFF FEET OUT
SW-16	BALE LOADER ON

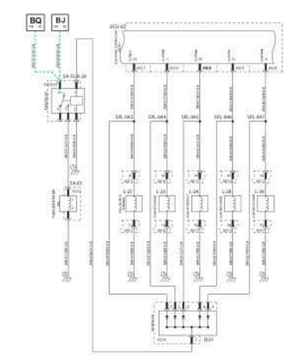
SENSORS



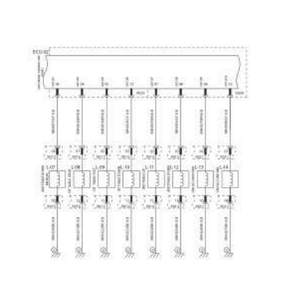
SENSORS



SOLENOIDS



SOLENOIDS



SCHEMATIC SYMBOLS

DIODE | FUSE | LAMP | MOTOR | COIL | RESISTOR | SPEED PICKUP | REED POSITION SENSOR

VARIABLE RESISTOR | CHASSIS GROUND (EARTH) | TWISTED WIRES | SHIELD & DRAIN | TO CHASSIS GROUNDS PAGE | HALL EFFECT SENSOR | CONTACTS ○ MAINTAINED △ MOMENTARY

ACTUATORS

HAND | FOOT | TEMPERATURE

LIQUID LEVEL FLOAT | LEVER | PRESSURE

H9870 / H9880
SELF-PROPELLED BALE WAGON
47928895
ELECTRICAL SCHEMATIC

Page 1 of 2

CIRCUIT COLOR INDEX

12V UNSWITCHED POWER
IGNITION KEY ON
SWITCHED POWER AFTER RELAY
STARTING SEQUENCE

CM-093 WH 0.8
WIRE SIZE
WIRE COLOR
CIRCUIT NUMBER
HARNESS CODE

FRAME	DESCRIPTION	FRAME	DESCRIPTION
1	ENGINE STARTING SYSTEM	12	HVAC SYSTEM
2	CHARGING SYSTEM	13	AIR CONDITIONING SYSTEM
3	ENGINE - FUEL, INDICATOR LIGHTS	14	RADIO
4	ENGINE SENSORS	15	CAN COMMUNICATIONS
5	INSTRUMENT GAUGES	16	COMMUNICATIONS
6	TRANSMISSION	17	MULTI-FUNCTION HANDLE
7	TRANSMISSION	18	SENSORS
8	REAR AXLE RANGE	19	SENSORS
9	BRAKES	20	SOLENOIDS
10	SEAT SYSTEM	21	SOLENOIDS
11	WIPER SYSTEM		

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