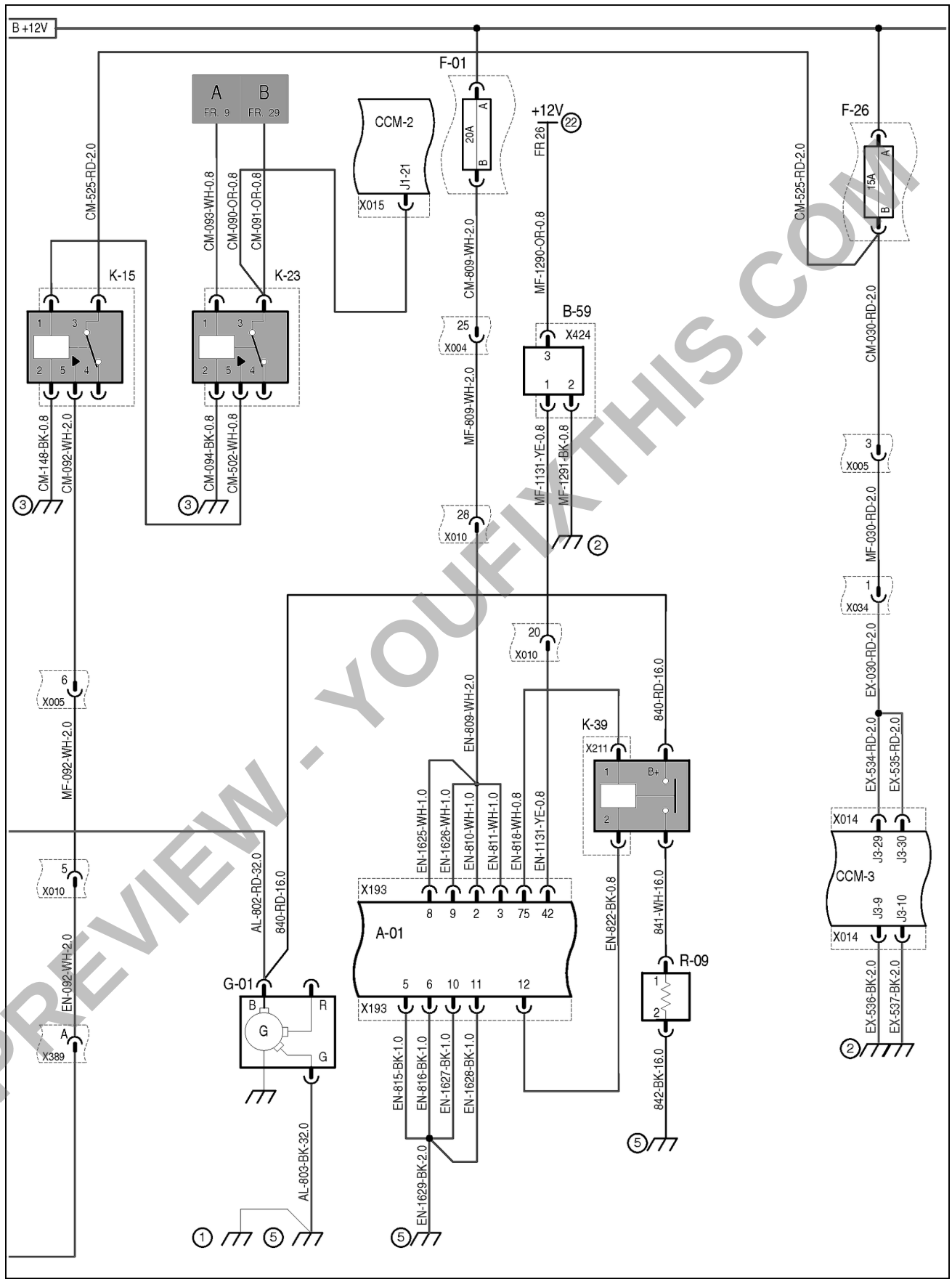
Wire harnesses - Electrical schematic frame 02

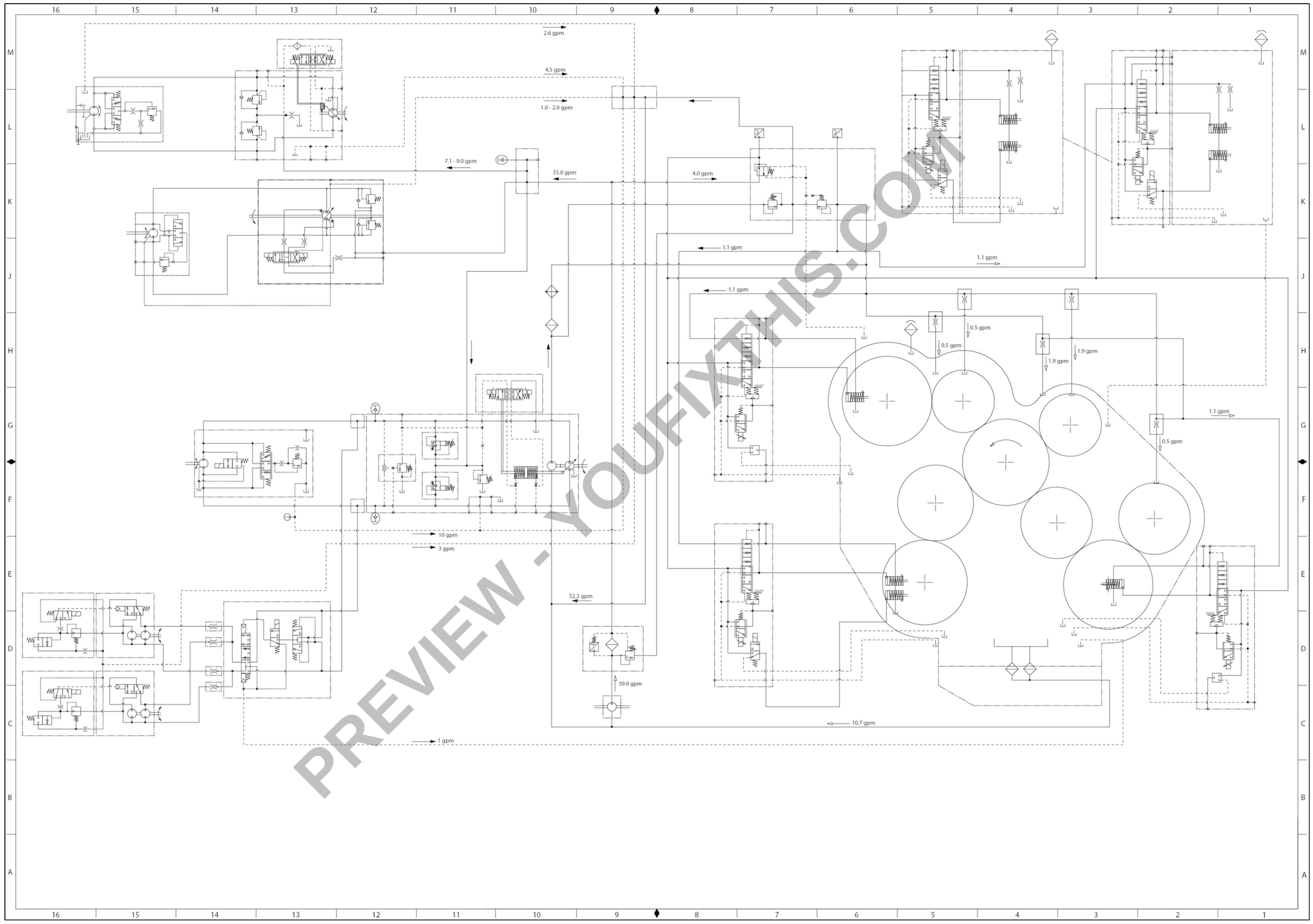


AF-20-MY09-FR2 1

STARTING

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



PREVIEW - YOUFIXTHIS.COM

23116655A 1

Download full manual at youfixthis.com

Feeder drive system - Torque - Specified Values for Feeder Gearbox and CVT Components

AXIAL-FLOW 7120, AXIAL-FLOW 8120, AXIAL-FLOW 9120

SPECIFIED TORQUES

Bolts, Feeder Gearbox Covers -M8 x 25	**19.6 - 24.5 Nm** (**173 - 217 lb in**)
Bolts, Feeder Gearbox Mounting - M16 x 60	**174 - 220 Nm** (**129 - 162 lb ft**)
Speed Sensor, Feeder Gearbox	**15 Nm** (**132 lb in**)
Bolts, CVT Planetary Gears Top Plate - M10 x 25	**33 - 38 Nm** (**25 - 28.0 lb ft**)
Bolt, Yoke to Planetary Gears Shaft - M16 x 1.5 x 35	**196 - 265 Nm** (**145 - 195 lb ft**)
Shaft, Rolling Torque of Planetary Gear Set	**1.392 - 3.352 Nm** (**12.5 - 29.5 lb in**)
Bolt, Clutch Pack Steel Retaining Plate - M6 x 10	**6.4 - 7.4 Nm** (**57 - 65 lb in**)
Bolts, Shim Pack Retaining Plate to Main Cover Variator Flange - M10 x 25	**33 - 38 Nm** (**25 - 28 lb ft**)
Bolts, Main Housing to Variator Flange - M10 x 35	**20.6 Nm** (**15 lb ft**)
Bolts, CVT Main Housing to Bevel Gear Housing - M12 x 125	**51 - 60 Nm** (**38 - 44 lb ft**)
Bolts, CVT Bevel Gear Housing to PTO Housing Mounting - M12 x 55	**90 - 99 Nm** (**67 - 73 lb ft**)
Bolts, Hydraulic Motor to CVT Mounting - M12 x 40 -	**70 - 80 Nm** (**52 - 59 lb ft**)
Cap Screws, CVT Hydraulic Valve Mounting - M10 x 80 HSH	**51 - 58 Nm** (**38 - 42 lb ft**)
Cap Screws, CVT Yoke Universal Joint Strap to Feeder Drive Shaft -12 pt.	**61 - 81 Nm** (**45 - 60 lb ft**)
Nut, Bevel Gear Input Shaft to Housing Input Sleeve - M50	**1.0 - 2.61 Nm** (**9 - 23 lb in**)
Shaft, Rolling Torque of Bevel Gear Housing Input	**1.0 - 2.61 Nm** (**9.0 - 23.0 lb in**)
Bolts, Bevel Gear Input Shaft Assembly to Bevel Gear Housing - M10 x 35	**33 - 38 Nm** (**25 - 28 lb ft**)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

	Axial-Flow 7120	Axial-Flow 8120 - Axial-Flow 9120
Grain Pan length	**1400 mm** (**55.1 in**)	**1400 mm** (**55.1 in**)
Grain Pan + rake surface	**20600.0 cm²** (**3193 in²**)	**24703.2 cm²** (**3829 in²**)
Pre-sieve width	**1276 mm** (**50.2 in**)	**1536 mm** (**60.5 in**)
Pre-sieve length	**645 mm** (**25.4 in**)	**645 mm** (**25.4 in**)
Pre-sieve area (with rake)	**10193.5 cm²** (**1580 in²**)	**12303.2 cm²** (**1907 in²**)
Upper sieve width	**1276 mm** (**50.24 in**)	2 x **744.5 mm** (**29.3 in**)
Upper sieve length	**1358 mm** (**53.5 in**)	**1358 mm** (**53.5 in**)
Upper sieve area	**17303.2 cm²** (**2682 in²**)	**20200.0 cm²** (**3131 in²**)
Upper sieve grate surface	**1548.4 cm²** (**240 in²**)	**1871.0 cm²** (**290 in²**)
LOWER SHAKER SHOE		
Lower sieve length	**1358 mm** (**53.5 in**)	**1358 mm** (**53.5 in**)
Lower sieve width	**1276 mm** (**50.24 in**)	2 x **744.5 mm** (**29.31 in**)
Lower sieve area	**17303.2 cm²** (**2682 in²**)	**20200.0 cm²** (**3131 in²**)
Total sieve area under wind control	**53999.9 cm²** (**8370 in²**)	**64999.9 cm²** (**10075 in²**)
CLEANING FAN		
Type	Cross-Flow	Cross-Flow
Drive	Hydraulic	Hydraulic
Fan speed range	**300 - 1150 RPM**	**300 - 1150 RPM**
Speed Control	Closed Loop	Closed Loop
Number of blades	40	40
RETURN SYSTEM		
Tailings Return Type	Triple Impeller Crop Processor	Triple Impeller Crop Processor
Cross auger speed	**548 RPM**	**548 RPM**
Bottom impeller speed	**548 RPM**	**548 RPM**
Middle impeller speed	**481 RPM**	**481 RPM**
Top impeller speed	**657 RPM**	**657 RPM**
GRAIN TANK, UNLOAD		
Central filling, foldable bubbler	Std	Std
Grain tank capacity	**10570 l** (**300.0 Bu**)	**11630 l** (**330.0 Bu**)
In-cab control of grain tank covers	Optional	Optional
Unloading concept	Over the top unloading	Over the top unloading
Unloading tube length, standard	**6.4 m** (**7.0 yd**)	**6.4 m** (**7.0 yd**)
Unloading tube length with extension	**7.3 m** (**8.0 yd**)	**7.3 m** (**8.0 yd**)
Bubble up auger speed	**464 RPM**	**464 RPM**
Bubble up auger speed - Optional slow	**338 RPM**	**338 RPM**

ENGINE	Axial-Flow 7120	Axial-Flow 8120	Axial-Flow 9120
Type	CASE IH AGRICULTURE Cursor **9 l**	CASE IH AGRICULTURE Cursor **10.3 l**	CASE IH AGRICULTURE Cursor **13 l**
Gross Power (ISO TR14396)	**260 kW** (**353.5 Hp**)	**298 kW** (**405.2 Hp**)	**343 kW** (**466.4 Hp**)
Governor	Electronic	Electronic	Electronic
Rated Speed	**2100 RPM**	**2100 RPM**	**2100 RPM**
Low idle speed	**1000 RPM**	**1000 RPM**	**1000 RPM**
High idle speed	**2100 RPM**	**2100 RPM**	**2100 RPM**
Cylinder displacement	**9 l** (**549 in³**)	**10.3 l** (**629 in³**)	**10.3 l** (**629 in³**)
Crankcase capacity (w-filters)	**25 l** (**6.6 US gal**)	**32 l** (**8.5 US gal**)	**35 l** (**9.2 US gal**)
Battery	2 x **12 V** - 950 CCA	2 x **12 V**- 950 CCA	2 x **12 V** - 950 CCA
Alternator type	**185 A** - **12 V**	**185 A** - **12 V**	**185 A** - **12 V**

Download full manual at youfixthis.com

Engine starting system - Problem solving

AXIAL-FLOW 7120, AXIAL-FLOW 8120, AXIAL-FLOW 9120

OPERATION

For more information on starting system operation, refer to: **Engine starting system - Dynamic description (55.201)**

TROUBLESHOOTING

Before troubleshooting the starting system, make sure that the following operating conditions are met:

1. The batteries are fully charged and all the connections are clean and tight.
2. Fuses **F-38** and **F-48** are serviceable.
3. Transmission in Neutral or Park.
4. Battery switch closed.

NOTE: *The batteries must be fully charged and all the connections clean and tight. Use a multi-meter (DVOM) for these tests. For battery testing and service, see the battery section in the service manual.*

⚠ **WARNING** ⚠

Before performing any of the electrical tests, be sure all operating controls are in neutral or park lock position. This will eliminate accidental movement of the machine or start-up of power driven equipment. Failure to comply could result in death or serious injury.

M980

NOTICE: *Do not use a self-powered test light for any of the following tests. Use of a self-powered test light may cause damage to components in this system.*

Problem	Possible Cause	Correction
Engine does not crank when key is turned to "Start" position.	Fuse **F-38**	**Ignition switch - Testing (55.201)**
	Key Switch **S-02**	**Ignition switch - Testing (55.201)** **Ignition switch - Testing (55.201)** Test Points 1 and 2
	Neutral Switch **S-22**	**Engine starting inhibitor switch - Testing (55.201)**
	Neutral Start Relay **K-23**	**Engine start relay Neutral start relay - Testing (55.201)**
	Start Relay **K-15**	**Engine start relay - Testing (55.201)**
	24V Start Relay **K-38**	**Engine start relay 24 V start relay - Testing (55.201)**
	Starter Motor **M-29**	**Engine starter - Testing (55.201)**
Click is heard when key is turned, but engine does not crank	24V Starter Motor **M-29**	**Engine starter - Testing (55.201)**
	24V Start Relay **K-38**	**Engine start relay 24 V start relay - Testing (55.201)**
	Start Relay **K-15**	**Engine start relay - Testing (55.201)**
	Neutral Start Relay **K-23**	**Engine start relay Neutral start relay - Testing (55.201)**
Engine cranks slowly	24V Starter Motor M-29	**Engine starter - Testing (55.201)**
	Excessive loading on engine	Check PTO gearbox clutches and hydraulic pumps to verify that they are not causing excessive load on engine. Check clutches for warped plates causing them to drag. Check hydraulic pumps for incorrect neutral position.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

OPERATION

A certain amount of header leak down is acceptable and corrective action should not be taken. If an operator reports problems with the feeder lift valve, detailed information of the concern should be gathered before attempting service of the feeder lift valve. Use the chart below for reference when investigating the concern.

TROUBLESHOOTING

- With the engine off, check for evidence of external oil leakage around seals, housing or hose connections.
- Check the maintenance records with the machine to determine if the recommended service procedures have been made at the proper intervals. Check for previous reports of unusual, frequent or similar failures.
- The header should not leak down more than one inch of lift cylinder travel per hour. If leak down is excessive, the following areas will have to be checked in order. See possible causes.

Problem	Possible Cause	Correction
The feeder house leaks down during harvesting.	Lift cylinder line(s) leaking.	Check for visible leaks and repair or replace if leaking.
	Feeder lift valve leaking.	Check for visible leaks and replace O-rings if leaking. Refer to **Distribution block solenoid valve - Remove header/feeder lift valve (35.410)** to access O-rings.
	Load check ball leaking. A leak here will normally provide a slow leak down.	**Distribution block solenoid valve - Inspect load check valve (35.410)**
	Lower secondary poppet leaking. A leak here can provide either a slow or extremely fast leak down.	**Distribution block solenoid valve - Inspect lower secondary poppet (35.410)**
	The thermal relief valve leaks externally.	Replace thermal relief valve

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

[44.511] Front wheels 44.1
[44.520] Rear wheels 44.2
Tracks and track suspension 48
[48.100] Tracks 48.1
[48.130] Track frame and driving wheels 48.2
[48.134] Track tension units 48.3
[48.138] Track rollers 48.4
Cab climate control 50
[50.100] Heating 50.1
[50.104] Ventilation 50.2
[50.200] Air conditioning 50.3
Electrical systems 55
[55.000] Electrical system 55.1
[55.010] Fuel injection system 55.2
[55.011] Fuel tank system 55.3
[55.012] Engine cooling system 55.4
[55.013] Engine oil system 55.5
[55.014] Engine intake and exhaust system 55.6
[55.015] Engine control system 55.7
[55.019] Hydrostatic drive control system 55.8
[55.021] Transmission pressure sensors 55.9
[55.024] Transmission control system 55.10
[55.030] Service brake electrical system 55.11
[55.031] Parking brake electrical system 55.12
[55.036] Hydraulic system control 55.13
[55.050] Heating, Ventilation, and Air-Conditioning (HVAC) control system 55.14
[55.051] Cab Heating, Ventilation, and Air-Conditioning (HVAC) controls 55.15
[55.100] Harnesses and connectors 55.16
[55.201] Engine starting system 55.17

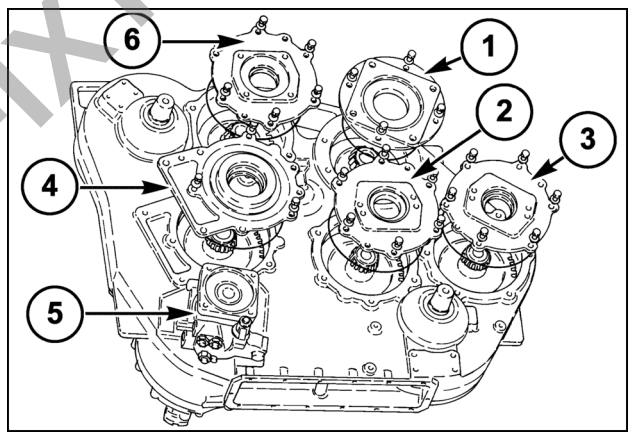
PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

Main gearbox and drive - Disassemble PTO Gearbox

AXIAL-FLOW 7120, AXIAL-FLOW 8120, AXIAL-FLOW 9120

Prior operation:
Main gearbox and drive - Drain fluid (14.100).
Prior operation:
Pump - Remove (29.218).
Prior operation:
Pump - Remove (35.106).
Prior operation:
Auxiliary hydraulic pump - Remove (35.220).
Prior operation:
Feeder housing pump - Remove (35.536).
Prior operation:
Threshing pump - Remove (35.536).
Prior operation:
Variable feeder drive - Remove (60.150).
Prior operation:
Threshing motor - Remove (35.536).
Prior operation:
Remove electrical wire harness from the PTO gearbox.

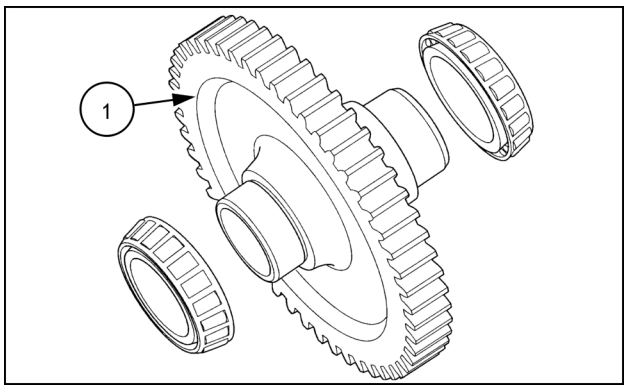
1. Beginning with the outboard side of the gearbox start removing the mounting flanges for the Ground Drive Hydro Pump shaft **(1)**, the Triple Gear Pump shaft **(2)**, the PFC System Pump shaft **(3)**, the Feeder CVT shaft **(4)**, the Rotor CVT and CVT Drive Motor shaft **(5)**, and the Rotor and Feeder Hydro Pumps shaft **(6)** by removing the mounting bolts. Use the jacking screw holes in the covers to remove the cover evenly. This can be accomplished by using some of the bolts that were removed from the cover, and relocated into the jacking screw holes. Remove the O-ring from behind each flange cover that has been removed.



20035881A5 1

2. Remove the shafts and gear assembly **(1)** for each cover removed.

NOTE: *For each shaft removed, remember the shaft location and the number of gear teeth for that location.*



10034954 2

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Wheel hub - Remove

⚠ WARNING

Avoid injury! Always do the following before lubricating, maintaining, or servicing the machine.
1. **Disengage all drives.**
2. **Engage parking brake.**
3. **Lower all attachments to the ground, or raise and engage all safety locks.**
4. **Shut off engine.**
5. **Remove key from key switch.**
6. **Switch off battery key, if installed.**
7. **Wait for all machine movement to stop.**

Failure to comply could result in death or serious injury.

W0047A

⚠ WARNING

Unexpected machine movement!
Make sure that you secure the machine with wheel chocks before you perform this procedure.
Failure to comply could result in death or serious injury.

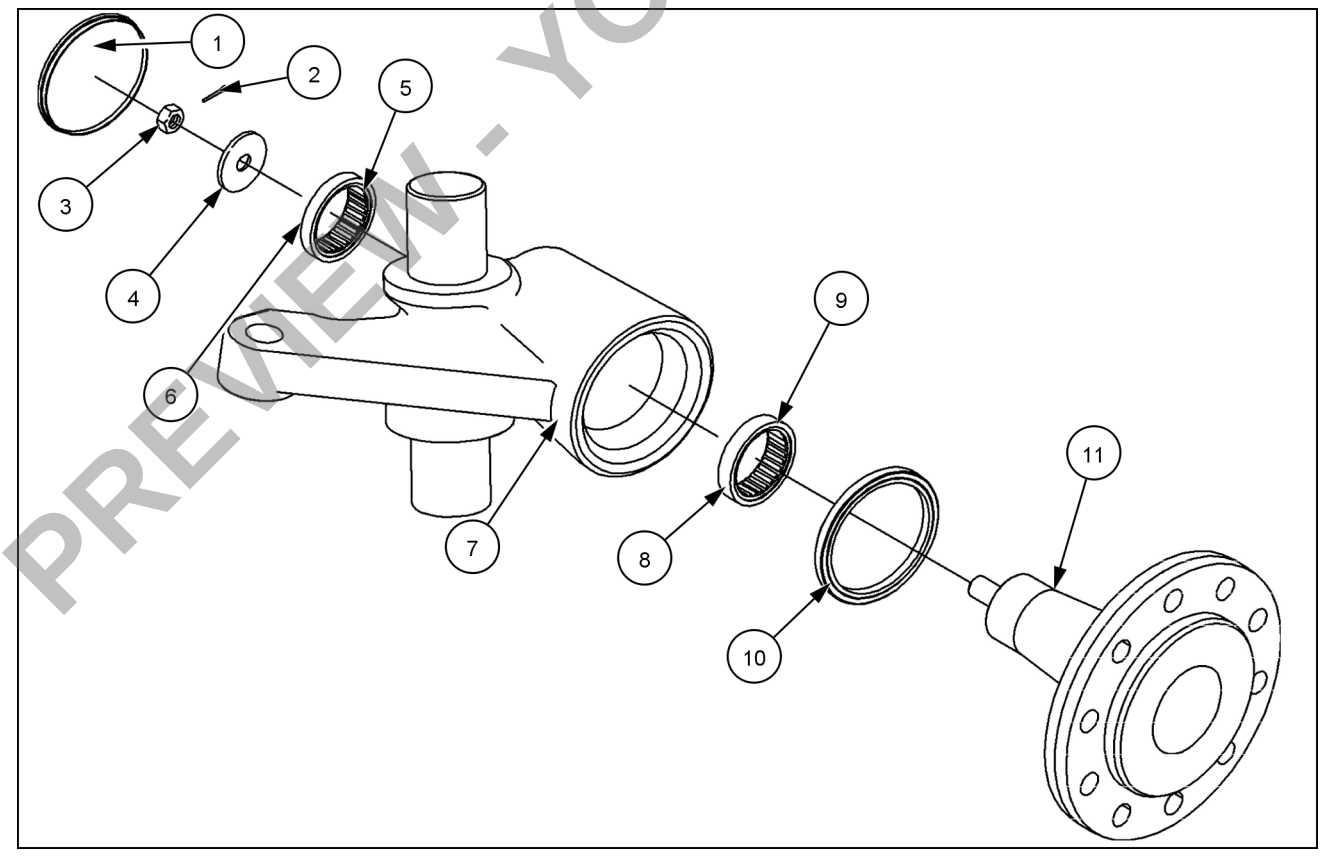
W1221A

⚠ DANGER

Heavy objects!
Lift and handle all heavy components using lifting equipment with adequate capacity. Always support units or parts with suitable slings or hooks. Make sure the work area is clear of all bystanders.
Failure to comply will result in death or serious injury.

D0076A

Prior operation:
Wheel hub - Service instruction - prior to removing wheel hub (27.550)



RI08B149NN 1

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

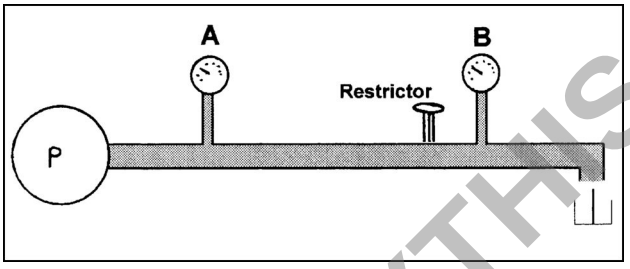
Hydraulic systems - Dynamic description

AXIAL-FLOW 7120, AXIAL-FLOW 8120, AXIAL-FLOW 9120

BASIC PRINCIPLES OF THE SYSTEM - The combine uses a combination of Pressure Flow Compensated (PFC) and open-center hydraulics systems to provide fluid power to numerous circuits. In a PFC system, oil flow is minimal unless there is a hydraulic demand. In an open-center system, oil is constantly pumped through the system regardless of hydraulic demand.

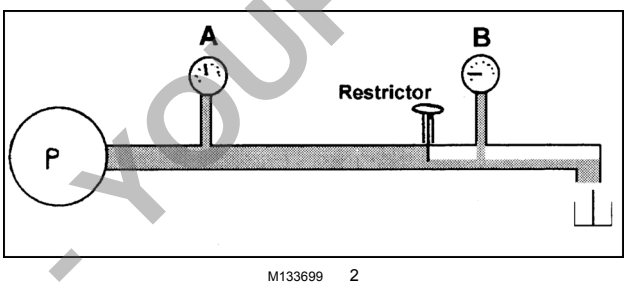
FLOW ACROSS RESTRICTION - The hydraulic system of the combine uses the principle of flow across a restriction for some functions. It is important to understand this basic principle in order to understand how the system works, or more importantly, why the system is not working properly.

1. When oil flows through an unrestricted passage (Figure **1**), the pressure in this passage, if any, will remain constant as long as pump flow remains constant.



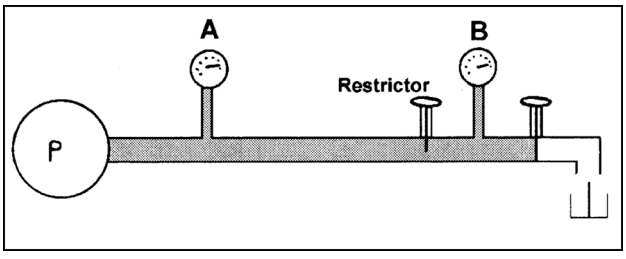
M133599 1

2. When oil in a passage flows across a restriction (Figure **2**), the pressure after the restriction will be less than the pressure before the restriction. Flow must exist for this to happen. A restriction can occur by any component causing a resistance to flow.



M133699 2

3. When oil in a passage is fully restricted from flow (no-flow) (Figure **3**), the pressure in the passage will build until it reaches the relief valve setting. This relief pressure will be maintained as long as the flow is blocked and the pump is functioning normally. This is true regardless of what component is blocking flow. No flow will create constant pressure in the passage based on the relief valve setting.



M133799 3

PILOT OPERATED HYDRAULIC SYSTEM

1. A pilot-operated hydraulic system has two basic parts or sections: A pilot (also called a primary) section, and a main (also called secondary) section.
2. When a pilot-operated system is actuated, the pilot (primary) always moves first. Once the pilot has operated, the main (secondary) section always moves last. This is true whether the system is being activated or deactivated.
3. The movement of the pilot (primary) controls a very small amount of oil flow (pilot flow). The movement of the main (secondary) controls the majority of oil flow (main flow) and is responsible for actuating a given system.

The header raise/header lower and reel drive valve are three examples of a pilot-operated system used on the combine.

Download full manual at youfixthis.com
PREVIEW - YOUFIXTHIS.COM

Steering - 41

Cylinders - 216

AXIAL-FLOW 7120 [Y8G205001 - Y9G207461] , AXIAL-FLOW 7120 [Y9G207601 - YAG210155] , AXIAL-FLOW 7120 [YAG210201 - YBG213400] , AXIAL-FLOW 7120 [YBG213601 - YCG214716] , AXIAL-FLOW 8120 [Y8G205001 - Y9G207461] , AXIAL-FLOW 8120 [Y9G207601 - YAG210155] , AXIAL-FLOW 8120 [YAG210201 - YBG213400] , AXIAL-FLOW 8120 [YBG213601 - YCG214716] , AXIAL-FLOW 9120 [Y8G205001 - Y9G207461] , AXIAL-FLOW 9120 [Y9G207601 - YAG210155] , AXIAL-FLOW 9120 [YAG210201 - YBG213400] , AXIAL-FLOW 9120 [YBG213601 - YCG214716]

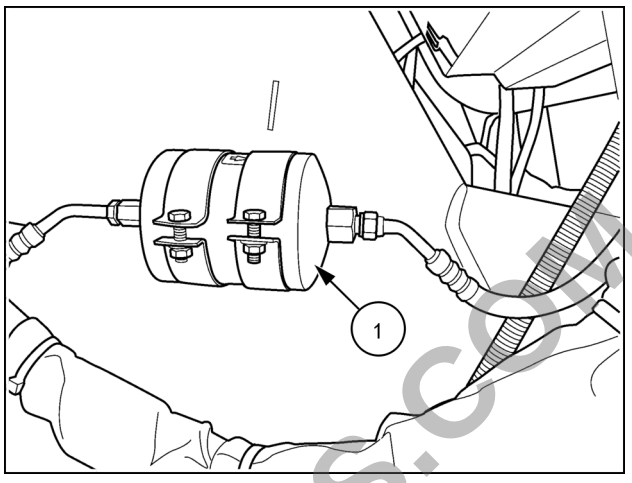
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Receiver/Dryer - Service limits

Replace the receiver/drier **(1)** if:

1. System has been opened before.
2. Receiver/drier has been used two or more years.
3. Disassembly shows small particles of moisture removing material (gold or brown particles).
4. If the system has been open for a long period of time because of a leak (broken hoses, loose connection) that has permitted air and moisture to enter the system.
5. If contaminated refrigerant was recovered from the system.

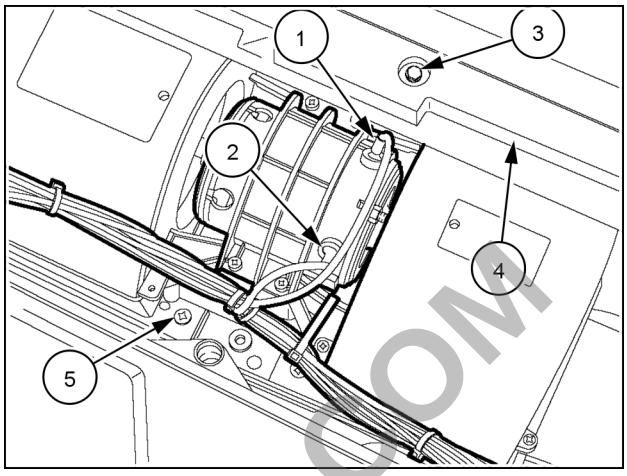


10036358 1

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

5. Disconnect wires **(1)** and **(2)** from motor.
   Cut any cable ties, if used, that tie wire harness to motor shielding.
6. Remove three screws **(3)** and remove plastic baffle **(4)**.
7. Remove six screws **(5)** and lift out motor assembly.



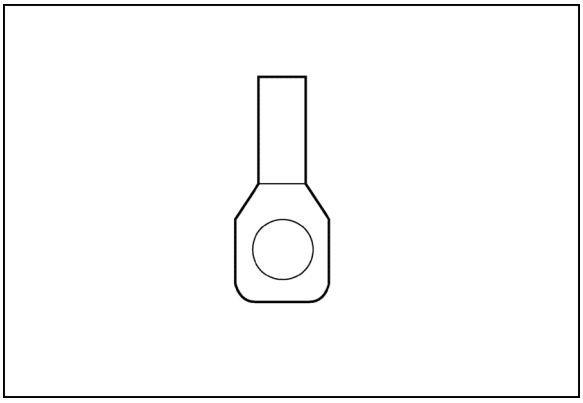
83082280 4

Next operation:
Blower Circulation fan - Install (55.050).

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Connector X231 - Straw Hood Front Harness to Frame Ground

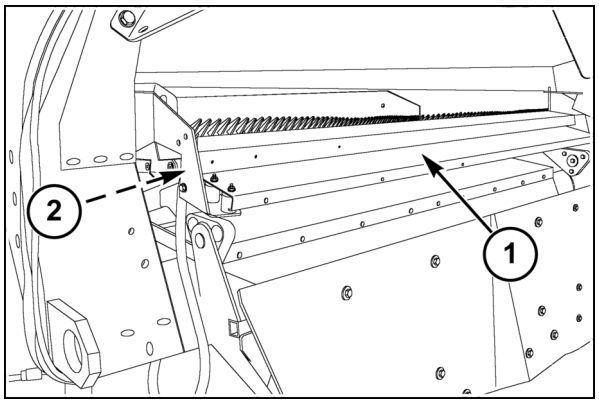


RING_TERMINAL 16

Two 8mm Ring Terminals

Cavity	Circuit ID	Description	Frame
1	478 (BK)	Frame ground 1 for Back up alarm **H-08** and Engine service socket **J-03**	**Wire harnesses - Electrical schematic frame 08 (55.100)** **Wire harnesses - Electrical schematic frame 39 (55.100)**
1	628 (BK)	Frame ground 1 for LH / RH NASO flashing light (NA) **E-07** / **E-08**, LH / RH rear flashing light (EU) **E-05** / **E-06**, RH / LH license plate light (EU) **E-57** / **E-58** and LH / RH brake / tail light **E-11** / **E-12**	**Wire harnesses - Electrical schematic frame 33 (55.100)** **Wire harnesses - Electrical schematic frame 35 (55.100)**
1	672 (BK)	Frame ground 1 for LH / RH rear work light **E-27** / **E-28**	**Wire harnesses - Electrical schematic frame 42 (55.100)**
1	1248 (BK)	Frame ground 2 for Engine light **E-46**	**Wire harnesses - Electrical schematic frame 38 (55.100)**
2	479 (BK)	Frame ground 1for Rear wheel assist **L-26**, Returns filter bypass **S-32**, PTO box filter bypass **S-34**, Upper / Lower sieve rear adjust **S-35** / **S-46**, Chaff spreader **L-28** and Trailer outlet **J-09**	**Wire harnesses - Electrical schematic frame 08 (55.100)** **Wire harnesses - Electrical schematic frame 10 (55.100)** **Wire harnesses - Electrical schematic frame 21 (55.100)** **Wire harnesses - Electrical schematic frame 35 (55.100)**
2	484 (BK)	Frame ground 1 for PTO box filter bypass **S-34**	**Wire harnesses - Electrical schematic frame 10 (55.100)**
2	603 (BK)	Frame ground 1 for Returns filter bypass **S-32**	

Connector X232 - Lower Frame Rear Harness to Sieves Loss B-21



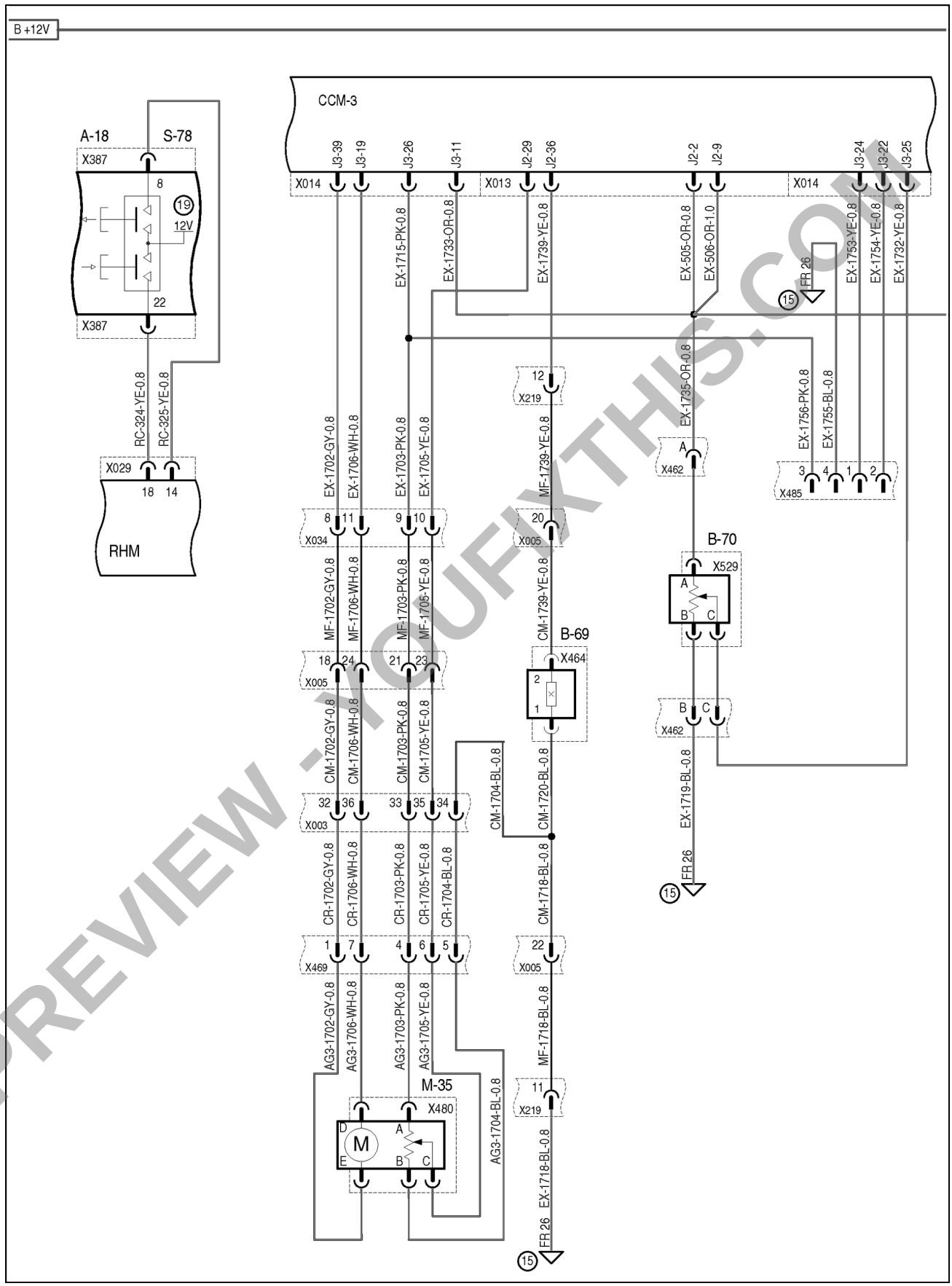
40031059A4 17

Rear of cleaning shoe

1. Sieve loss sensor B-21

Download full manual at youfixthis.com
PREVIEW - YOUFIXTHIS.COM

Wire harnesses - Electrical schematic frame 23



AF-20-MY09-FR23 1

AUTO GUIDANCE

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

ISO Mode

If a left turn is selected (+ **12 V** on A-05 pin 8), **A-05** puts out a pulsing voltage on pin 3. This causes these lights to flash on and off:

E-03 Left-hand front hazard light
E-05 Left-hand rear flashing light
E-52 Left-hand flashing light

A-05 puts out 0 volts on pin 4, and the right-hand signal lights are dark:

E-04 Right-hand front hazard light
E-06 Right-hand rear flashing light
E-51 Right-hand flashing light

If a right turn is selected (+ **12 V** on A-05 pin 7), **A-05** puts out a pulsing voltage on pin 4 and 0 volts on pin 3. The situation is now reversed, with the right-hand lights flashing and the left-hand lights dark.

Hazard Lights

Figure **2** is a simplified functional diagram of the hazard light circuits.

Closing hazard switch **S-25** (ON position) applies + **12 V** to pin 2 of flasher module **A-05**. At the same time, **S-25** applies voltage to its internal light-emitting diode (LED) indicator, which illuminates. In addition, the voltage at pin 2 is applied to pin J1-15 of controller CCM2. This informs the system that the hazard switch has been activated.

When the hazard switch is activated, the following work lights are disabled:

- LH Cab Inner Work Light **E-17** will only operate in "Low Beam" mode.
- RH Cab Inner Work Light **E-18** will only operate in "Low Beam" mode.
- LH Lower Work Light **E-23**
- RH Lower Work Light **E-24**
- Unload Tube Light **E-29**
- LH Rear Work Light **E-27**
- RH Rear Work Light **E-28**
- RH HID Field Light **E-61**

The voltage at pin 2 of **A-05** activates the module, and pulsing voltage appears at output pins 3 and 4. These pulsing voltage signals cause the LED indicators in turn indicator **E-09** to flash on and off. At the same time, **A-05** pins 3 and 4 supply pulsing voltage to the combine's hazard lights, causing them to flash.

Pin 3 supplies pulsing voltage to the hazard lights on the left side of the combine:

E-01 Left-hand header flasher (NA)
E-03 Left-hand front hazard light
E-05 Left-hand rear flashing light (EU)
E-52 Left-hand flashing light (EU)

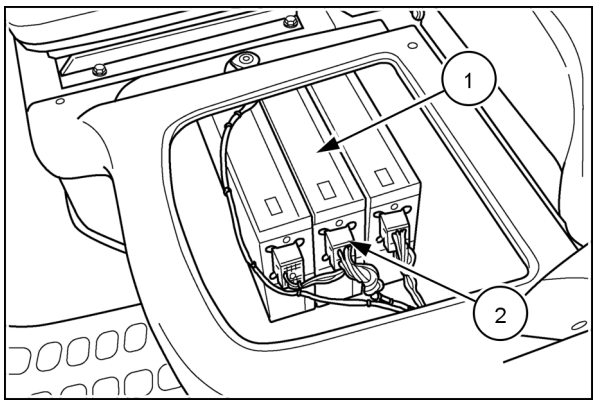
Voltage from pin 3 is also made available for a trailer at trailer outlet **J-09** pin L.

Pin 4 supplies pulsing voltage to the hazard lights on the right side of the combine:

E-02 Right-hand header flasher (NA)
E-04 Right-hand front hazard light
E-06 Right-hand rear flashing light (EU)
E-51 Right-hand flashing light (EU)

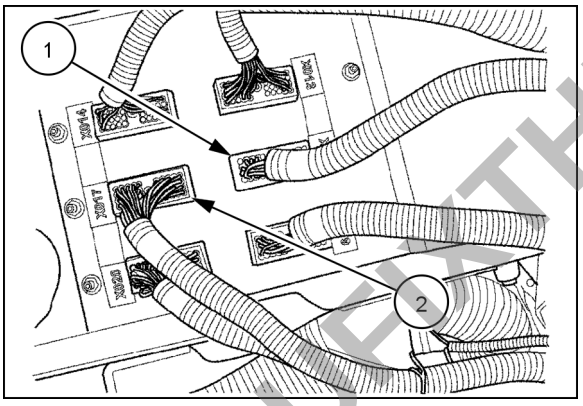
Voltage from pin 4 is also made available for a trailer at trailer outlet **J-09** pin R.

Download full manual at youfixthis.com
PREVIEW - YOUFIXTHIS.COM



10004693 3

Connectors **X016 (1)** and **X017 (2)** are located on the underside of CM2 and are accessible from under the cab.



33086951 4

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

B. If the voltage reading is within the normal operating range, the grounded condition is internal to the Rear work light switch **S-44**, replace the switch.

5. Disconnect the cab main (CM) harness from the cab roof (CR) harness at connector **X002**. Use the Display Monitor, reference **Instrument cluster - Detailed view (55.408)**, if needed, to recheck the voltage range.

   A. If the voltage reading is low, less than **0.25 V**, continue with step **6**.

   B. If the voltage reading is within the normal operating range, the grounded condition is in the cab roof (CR) harness between connector **X002** pin 15 and connector **X131** pin 3, wire 170 yellow. Locate and repair the grounded conductor.

6. Carefully disconnect the cab main (CM) harness from **CCM1** at connector **X018**. Use the Display Monitor, reference **Instrument cluster - Detailed view (55.408)**, if needed, to recheck the voltage range.

   A. If the voltage reading is low, less than **0.25 V**, **CCM1** has failed internally. Replace the module.

   B. If the voltage reading is within the normal operating range, the grounded condition is in the cab main (CM) harness between connector **X002** pin 15 and connector **X018** pin J1-15, wire 170 yellow. Locate and repair the grounded conductor.

7. Visually inspect the relevant harnesses and connectors for damage, bent or dislocated pins, corroded terminals or broken wires. Verify that the connectors are fully installed. Flex the harnesses involved to reveal intermittent breaks or shorts in the wiring concerned. Operate the machine while monitoring the Display.

   A. If damage is found or other than normal display readings are indicated, repair the damage discovered during the inspection or locate and repair the other than normal display condition and verify that the error has been resolved.

   B. If no damage or other than normal display readings are indicated, erase the fault code and continue operation.

Wire harnesses - Electrical schematic frame 22 (55.100.DP-C.20.E.22)
Wire harnesses - Electrical schematic frame 27 (55.100.DP-C.20.E.27)
Wire harnesses - Electrical schematic frame 30 (55.100.DP-C.20.E.30)
Wire harnesses - Electrical schematic frame 36 (55.100.DP-C.20.E.36)
Wire harnesses - Electrical schematic frame 39 (55.100.DP-C.20.E.39)
Wire harnesses - Electrical schematic frame 42 (55.100.DP-C.20.E.42)
Wire harnesses - Electrical schematic frame 47 (55.100.DP-C.20.E.47)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

E0133-03-Hydraulic Reservoir Level Sensor - Shorted to High Source

AXIAL-FLOW 7120 [Y8G205001 - Y9G207461], AXIAL-FLOW 7120 [Y9G207601 - YAG210155], AXIAL-FLOW 7120 [YAG210201 - YBG213400], AXIAL-FLOW 7120 [YBG213601 - YCG214716], AXIAL-FLOW 8120 [Y8G205001 - Y9G207461], AXIAL-FLOW 8120 [Y9G207601 - YAG210155], AXIAL-FLOW 8120 [YAG210201 - YBG213400], AXIAL-FLOW 8120 [YBG213601 - YCG214716], AXIAL-FLOW 9120

Control Module : CM2

Cause:
The Hydraulic reservoir level switch **S-33** circuit is shorted to 12 volts.

Possible failure modes:

1. Switch supply wiring shorted to **12 volts**.
2. Controller internal failure.

Solution:

1. Use the Display Monitor diagnostics capability to view "Parameter" status, reference **Instrument cluster - Detailed view (55.408)**, if needed, to check the voltage range.

   The proper voltage for the hydraulic reservoir level switch is **1.8 volts** or less, when the oil level okay.

   The proper voltage for the hydraulic reservoir level switch when oil level is low is approximately **8.3 volts**.

   A. If the voltage reading is high out of range (greater than **10 volts**), continue with Step **2**.

   B. If the voltage reading is within the proper limits, the fault may be intermittent and not currently active. Continue with step **4**.
2. Disconnect the Hydraulic reservoir level switch **S-33** from the gearbox (GB) harness at connector **X104**.

   A. If the voltage drops back into the proper range the short is in the switch, or switch wiring. Replace the switch.

   B. If the voltage remains high, continue with Step **3**.
3. Disconnect the gearbox (GB) harness from the main frame (MF) harness at connector **X011**.

   A. If the voltage drops back into the proper range, the short is in the gearbox (GB) harness between connector **X011** pin 3 and connector **X104** pin B wire 424 yellow. Locate and repair.

   B. If the voltage remains high, the short circuit is in the main frame (MF) harness between connector **X011** pin 3 and connector **X016** pin J2-39 wire 424 yellow. Locate and repair.
4. Visually inspect the relevant harnesses and connectors for damage, bent or dislocated pins, corroded terminals or broken wires. Verify that the connectors are fully installed. Flex the harnesses involved to reveal intermittent breaks or shorts in the wiring concerned. Operate the machine while monitoring the Display.

   A. If damage is found or other than normal display readings are indicated, repair the damage discovered during the inspection or locate and repair the other than normal display condition and verify that the error has been resolved.

   B. If no damage or other than normal display readings are indicated, erase the fault code and continue operation.

Hydraulic fluid level sensor - Overview (55.036.AJ-C.10.A.10)
Wire harnesses - Electrical schematic frame 10 (55.100.DP-C.20.E.10)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

B. If there is **5.0 V**, the Lower sieve actuator **M-07** position sensor has failed internally. Replace the actuator.

7. Use the Display Monitor, reference **Instrument cluster - Detailed view (55.408)**, if needed, to check for Error **E0293-03 - CCM3 J2 5V Reference - Shorted to high source**.

   A. If error **E0293-03 - CCM3 J2 5V Reference - Shorted to high source** is active, resolve that error and then determine if this error has also been resolved.

   B. If error **E0293-03 - CCM3 J2 5V Reference - Shorted to high source** is not active, there is a broken and shorted conductor in the supply circuit for the Lower sieve actuator **M-07** position sensor. Continue with step **8**.

8. Disconnect the lower frame rear (LR) harness from the straw hood front (SW) harness at connector **X072**. Use a multi-meter to check the voltage on the straw hood front (SW) harness side of connector **X072** from pin K to chassis ground. There should be **5.0 V**.

   A. If the voltage remains high, greater than **5.2 V**, there is a broken and shorted conductor in the straw hood front (SW) harness between connector **X072** pin K and the straw hood front (SW) harness splice, wire 794 pink. Locate and repair the damaged conductors.

   B. If there is **5.0 V**, there is a broken and shorted conductor in the lower frame rear (LR) harness between connector **X228** pin A and connector **X072** pin K , wire 794 pink. Locate and repair the damaged conductors.

9. Visually inspect the relevant harnesses and connectors for damage, bent or dislocated pins, corroded terminals or broken wires. Verify that the connectors are fully installed. Flex the harnesses involved to reveal intermittent breaks or shorts in the wiring concerned. Operate the machine while monitoring the Display.

   A. If damage is found or other than normal display readings are indicated, repair the damage discovered during the inspection or locate and repair the other than normal display condition and verify that the error has been resolved.

   B. If no damage or other than normal display readings are indicated, erase the fault code and continue operation.

Wire harnesses - Electrical schematic frame 20 (55.100.DP-C.20.E.20)
Wire harnesses - Electrical schematic frame 26 (55.100.DP-C.20.E.26)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

E1595-02- Cylinder2 - Open Load - Data incorrect

AXIAL-FLOW 7120 [Y8G205001 - Y9G207461], AXIAL-FLOW 7120 [Y9G207601 - YAG210155], AXIAL-FLOW 7120 [YAG210201 - YBG213400], AXIAL-FLOW 7120 [YBG213601 - YCG214716], AXIAL-FLOW 8120 [Y8G205001 - Y9G207461], AXIAL-FLOW 8120 [Y9G207601 - YAG210155], AXIAL-FLOW 8120 [YAG210201 - YBG213400], AXIAL-FLOW 8120 [YBG213601 - YCG214716], AXIAL-FLOW 9120

Control Module : ECU

Context:
The engine control unit (ECU) **A-01** has determined that an open circuit condition exists in the Fuel actuator 3 (Cyl 2) **L-36** injector circuit. A power stage component energizes the unit injection system transistors and simultaneously observes the current flow in the high-side and low-side switching branch by sensing resistors. If there is a deviation from the expected current flow the component detects specific errors and reports them to the ECU **A-01**. This error message is then rearranged so it holds information on performed injections, errors of cylinders on the same bank, bank specific errors and cylinder specific errors. The rearranged error message is then compared to applicable error patterns and if there is a match the failure corresponding to the matched pattern is output. If an error message doesn't match any pattern the defect is treated as an unclassifiable error. Monitoring is performed once per camshaft revolution. This error is the result of an open circuit failure being present for over 3 camshaft revolutions. As a result of this error an individual cylinder or bank is shut off, based on parameters established in the ECU **A-01**. Certain parameters, as currently applied, are permanent (without a healing possibility, once tested by switching on the component to see if the defect is still present). and others evoke an irreversible or reversible shut off of the engine to be executed.

Cause:
The Engine Control Unit (ECU) **A-01** has determined that there is a fault associated with the current monitoring of the Fuel actuator 3 (Cyl 2) **L-36** injector output power driver stage.

Possible failure modes:

1. Faulty injection valve or open solenoid windings.
2. Faulty electrical wiring, open circuit (damaged wiring).
3. Faulty ECU **A-01**, hardware or software.

Solution:

1. Carefully disconnect the engine injector harness from the ECU **A-01** at connector **X515**. Use a multi-meter to check the resistance, on the engine injector harness side of connector **X515**, between pins 6 and 11. There should be **0.4 - 0.5 Ω**.

   A. If the resistance is within range, the ECU **A-01** may have failed. Try reloading the ECU **A-01** software and if the fault reoccurs, replace the ECU **A-01**.

   B. If the resistance was significantly greater than maximum range, continue with step **23**
2. Disconnect the engine injector harness from the injector (valve) cover at connector **X471**. Use a multi-meter to check resistance on the injector (valve) cover side of connector **X471** from pin C to pin D. There should be **0.4 - 0.5 Ω**.

   A. If a small amount of resistance exists, there is open circuit condition in the engine injector harness between connector **X471** and connector **X515** Locate and repair the broken conductor.

   B. If the resistance was significantly greater than maximum range, continue with step **3**
3. Remove the injector (valve) cover and disconnect the injector harness from the Fuel actuator 3 (Cyl 2) **L-36** injector at connector **X378** terminal 1 (high side ring terminal) Use a multi-meter to check resistance, on the Fuel actuator 3 (Cyl 2) **L-36** injector, from terminal 1 to terminal 2. There should be **0.4 - 0.5 Ω**.

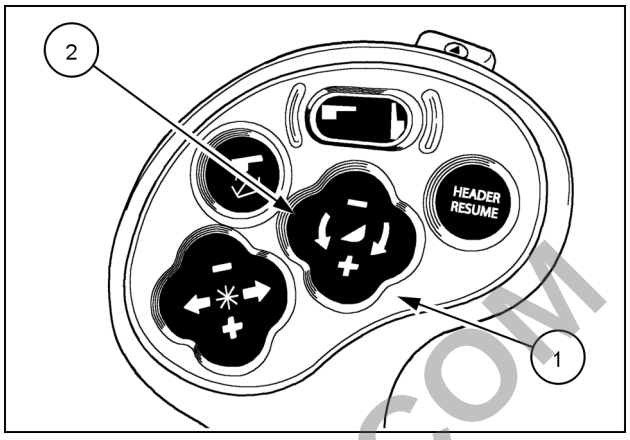
   A. If the resistance is within range, there is an open circuit condition in the injector harness, between connector **X378** and connector **X471 X515**. Locate and repair the broken conductor.

   B. If the resistance was significantly greater than maximum range, the Fuel actuator 3 (Cyl 2) **L-36** injector solenoid coil has failed. Replace the injector.

Wire harnesses - Electrical schematic frame 04 (55.100.DP-C.20.E.04)

Download full manual at youfixthis.com
PREVIEW - YOUFIXTHIS.COM

4. Start the combine.
   On the Header Control Switch **(1)** press the switch to "tilt left" **(2)** to retract the cylinder rod out of the way. Completely shut off the combine and follow all safety procedures.



50030101 4

⚠ WARNING ⚠

ALWAYS shut OFF engine, remove the key and engage header or feeder safety locks in position on lift cylinder before working under or around header or feeder. Failure to comply could result in death or serious injury.

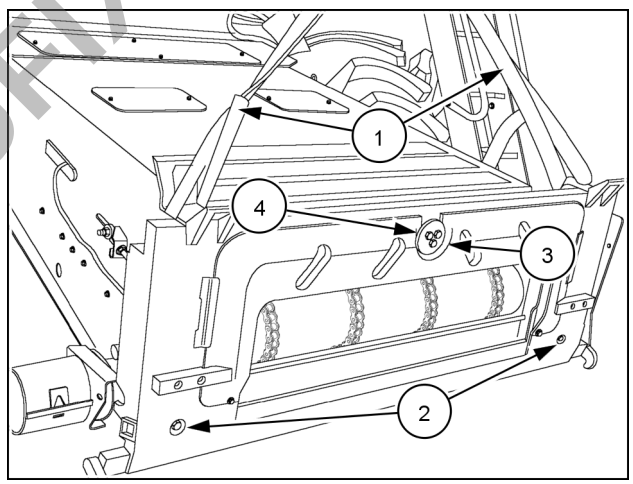
M184D

⚠ WARNING ⚠

Lift and handle all heavy components using lifting equipment of appropriate lifting capacity. Make sure that units or parts are supported by suitable slings or hooks. Make sure that no-one is in the vicinity of the load to be lifted. Failure to comply could result in serious injury or death.

B012

5. Secure the weight of the cradle using an appropriate hoist with a sling type lifting device **(1)** attached to the top of the cradle.
   Remove the bolts **(2)** washers, spacers, and nuts.
   Remove the bolts **(3)** washers, center retaining plate **(4)** and thrust washer.
   Pull the cradle forward to slide the cradle off the pivot shaft. Lower the cradle to the ground.



50052651 5

PREVIEW - YOUFIXTHIS.COM

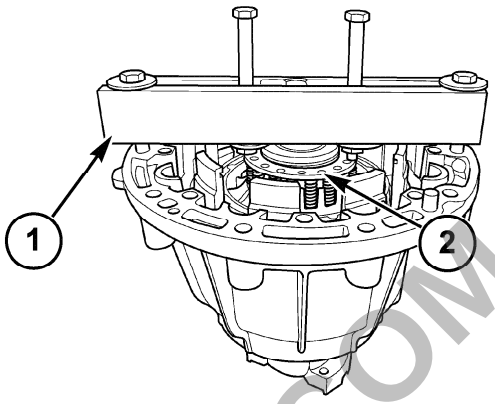
Download full manual at youfixthis.com

13. Set up a tool **(1)** to compress the spring plate **(2)** and remove the retaining ring.

⚠ CAUTION ⚠

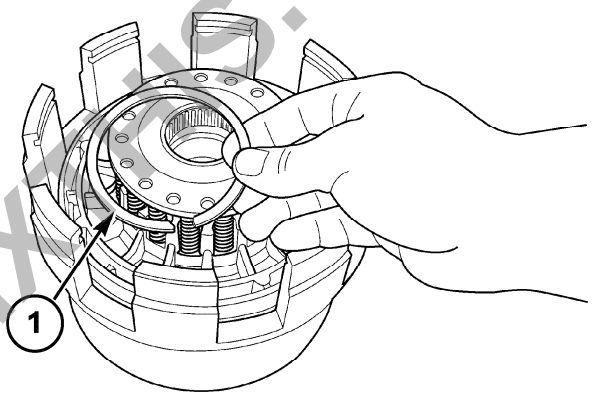
The springs are compressed under extreme pressure. Use caution releasing the tool when decompressing the springs. Always wear safety glasses. Failure to comply may result in minor or moderate injury.

M1271



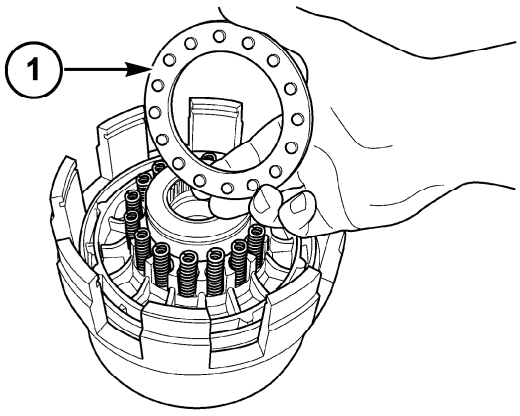
10036333B5 13

14. Remove the retaining ring **(1)**.



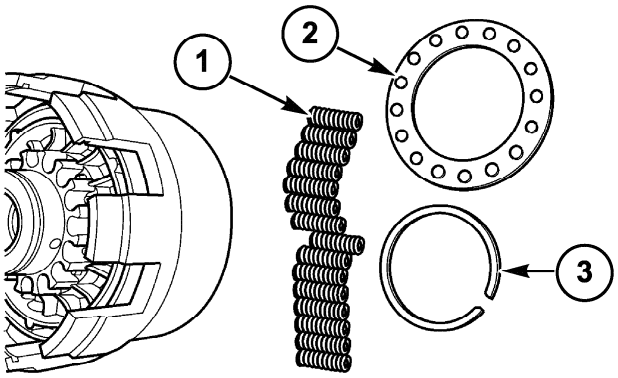
10035919B5 14

15. Remove the spring plate **(1)**.



10035920B5 15

16. When the retaining ring **(3)** and spring plate **(2)** are removed, remove the springs **(1)**.



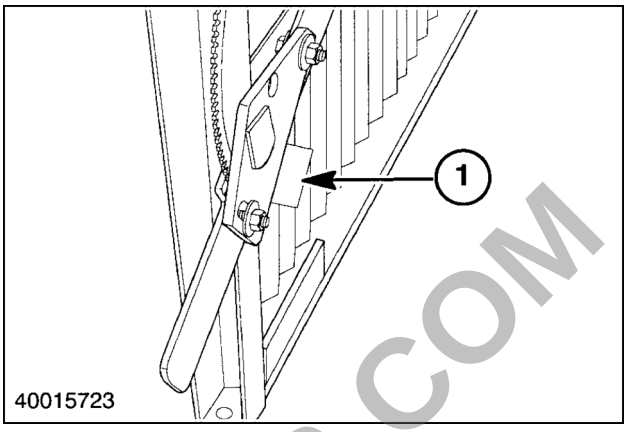
10035921B5 16

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

Upper sieve - Install

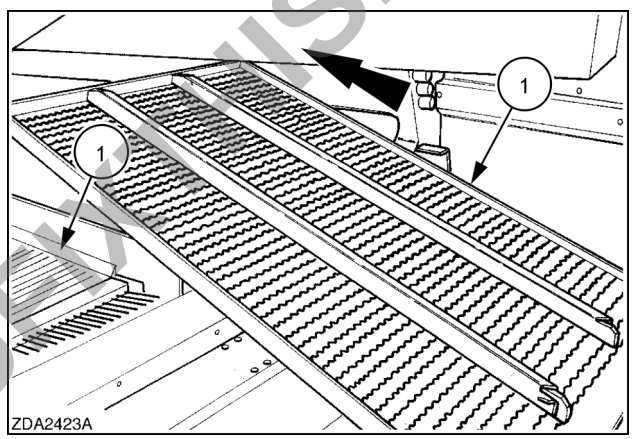
1. The sieves with welded tabs **(1)** are manufactured to be installed only on left side of shoe.

NOTE: *Found on remotely operated sieves only.*



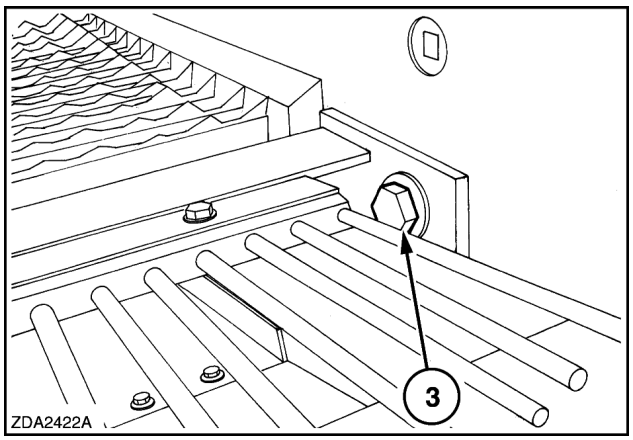
40015723 1

2. Slide right and left upper sieves **(1)** into combine.



ZDA2423A 2

3. Install two M12x30 cap screws and lock washers **(3)** at sides and one M12x40 cap screw with two lock washers and a nut through center divider to retain sieves. Torque to **85 - 105 Nm** (**63 - 77 lb ft**).

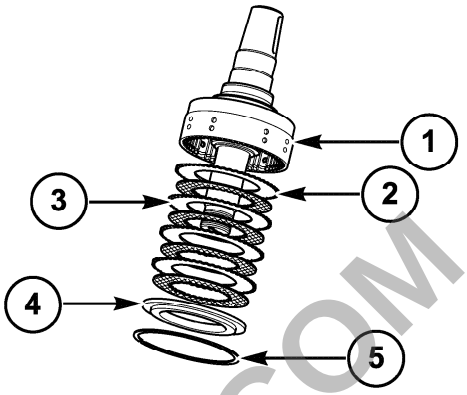


ZDA2422A 3

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

7. Remove the backing plate retaining ring **(5)** , the clutch backing plate **(4)** , the clutch friction plates **(3)** and separator plates **(2)**.

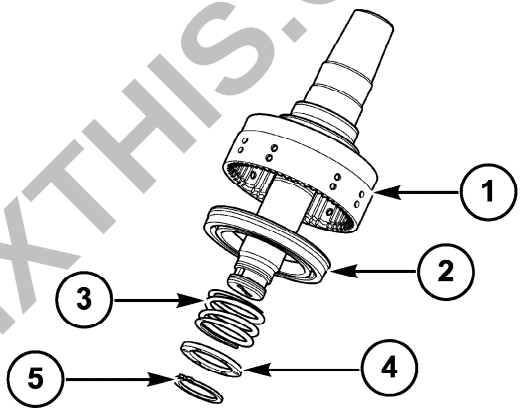


10035842A5 7

8. Remove the retaining ring **(5)** , piston return spring retainer **(4)** , piston return spring **(3)** and the piston **(2)** assembly. Use special tool **CAS1992**.

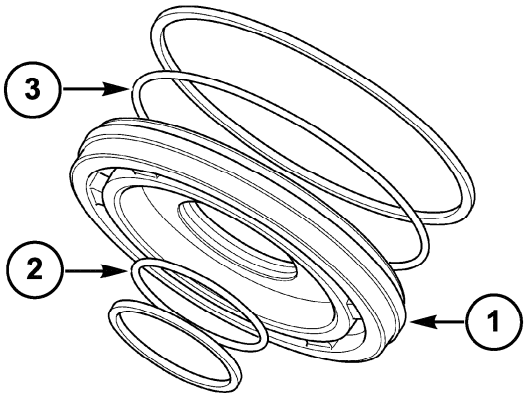
NOTE: *When removing the snap ring be careful of the force from the spring pressure. You will need to place the assembly in a press to hold down the spring while removing the snap ring. Use the snap ring pliers to spread the ring open during removal to prevent from scoring the shaft. Once the snap ring is removed, slowly release the press.*

NOTE: *To remove the piston use compressed air inserted in the shaft hole between the two seals on the end of the shaft.*



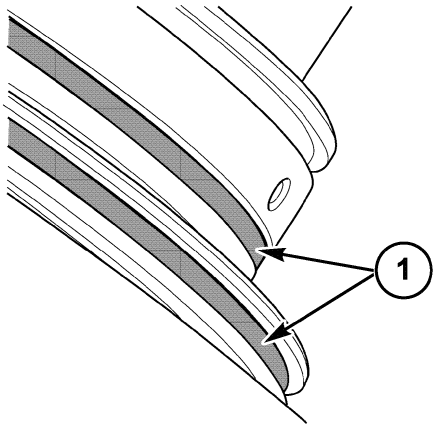
10035841A5 8

9. Remove all the seals **(1)**, **(2)**, **(3)** from the clutch piston.



10035840A5 9

10. Remove the two x ring seals **(1)** from the brake end of the shaft as well.



10035847A5 10

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 25 of 4590 pages

The full manual includes:

- All 4590 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Case IH Axial-Flow 7120, 8120, 9120 Service Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual