Rowtrac™ 420 / 470 / 500
Steiger® 370 / 420 / 470 / 500 / 540 / 580 / 620
Quadtrac® 470 / 500 / 540 / 580 / 620
Tier 4B (final)
Tractor

PIN JEEZ00000FF314001 and above

SERVICE MANUAL

Part number 48193194
1st edition English
October 2017

CASE IH AGRICULTURE

MidWestTech | Case Rowtrac, Steiger, Quadtrac 370, 420, 470, 500, 540, 580, 620 Tier 4B Tractor Service Manual | Publication 48193194

Order the manual at mid-west-tech.com >

Contents

INTRODUCTION

Engine 10

[10.001] Engine and crankcase 10.1

[10.216] Fuel tanks 10.2

[10.202] Air cleaners and lines 10.3

[10.500] Selective Catalytic Reduction (SCR) exhaust treatment 10.4

[10.400] Engine cooling system 10.5

[10.414] Fan and drive 10.6

[10.310] Aftercooler 10.7

Power coupling 19

[19.100] Drive shaft 19.1

[19.110] Flywheel damper 19.2

Transmission 21

[21.113] Powershift transmission 21.1

[21.135] Powershift transmission external controls 21.2

[21.155] Powershift transmission internal components 21.3

[21.504] Continuously Variable Transmission (CVT) 21.4

[21.505] Continuously Variable Transmission (CVT) external controls 21.5

[21.506] Continuously Variable Transmission (CVT) hydraulic components 21.6

[21.507] Continuously Variable Transmission (CVT) internal components 21.7

Front axle system 25

[25.100] Powered front axle 25.1

[25.102] Front bevel gear set and differential 25.2

[25.310] Final drives 25.3

[25.500] Front axle track yoke assembly 25.4

Rear axle system 27

MidWestTech | Case Rowtrac, Steiger, Quadtrac 370, 420, 470, 500, 540, 580, 620 Tier... Order the manual at mid-west-tech.com >

[27.100] Powered rear axle 27.1
[27.106] Rear bevel gear set and differential 27.2
[27.120] Planetary and final drives 27.3
[27.610] Rear axle track yoke assembly 27.4
Power Take-Off (PTO) 31
[31.104] Rear electro-hydraulic control 31.1
[31.110] One-speed rear Power Take-Off (PTO) 31.2
[31.220] Gearbox 31.3
Brakes and controls 33
[33.202] Hydraulic service brakes 33.1
[33.110] Parking brake or parking lock 33.2
Hydraulic systems 35
[35.000] Hydraulic systems 35.1
[35.300] Reservoir, cooler, and filters 35.2
[35.106] Variable displacement pump 35.3
[35.102] Pump control valves 35.4
[35.105] Charge pump 35.5
[35.304] Combination pump units 35.6
[35.204] Remote control valves 35.7
[35.600] High flow hydraulics 35.8
Hitches, drawbars, and implement couplings 37
[37.100] Drawbars and towing hitches 37.1
Frames and ballasting 39
[39.100] Frame 39.1
Steering 41
[41.101] Steering control 41.1
[41.200] Hydraulic control components 41.2
[41.206] Pump 41.3

MidWestTech | Case Rowtrac, Steiger, Quadtrac 370, 420, 470, 500, 540, 580, 620 Tier... Order the manual at mid-west-tech.com >

Wheels 44
[44.511] Front wheels 44.1
[44.520] Rear wheels 44.2
Tracks and track suspension 48
[48.130] Track frame and driving wheels 48.1
[48.100] Tracks 48.2
[48.134] Track tension units 48.3
[48.138] Track rollers 48.4
Cab climate control 50
[50.104] Ventilation 50.1
[50.200] Air conditioning 50.2
[50.300] Cab pressurizing system 50.3
Electrical systems 55
[55.000] Electrical system 55.1
[55.100] Harnesses and connectors 55.2
[55.640] Electronic modules 55.3
[55.201] Engine starting system 55.4
[55.301] Alternator 55.5
[55.302] Battery 55.6
[55.010] Fuel injection system 55.7
[55.014] Engine intake and exhaust system 55.8
[55.988] Selective Catalytic Reduction (SCR) electrical system 55.9
[55.640] Electronic modules 55.10
[55.024] Transmission control system 55.11
[55.045] Front axle control system 55.12
[55.046] Rear axle control system 55.13
[55.522] Cab Power Take-Off (PTO) controls 55.14
[55.048] Rear Power Take-Off (PTO) control system 55.15

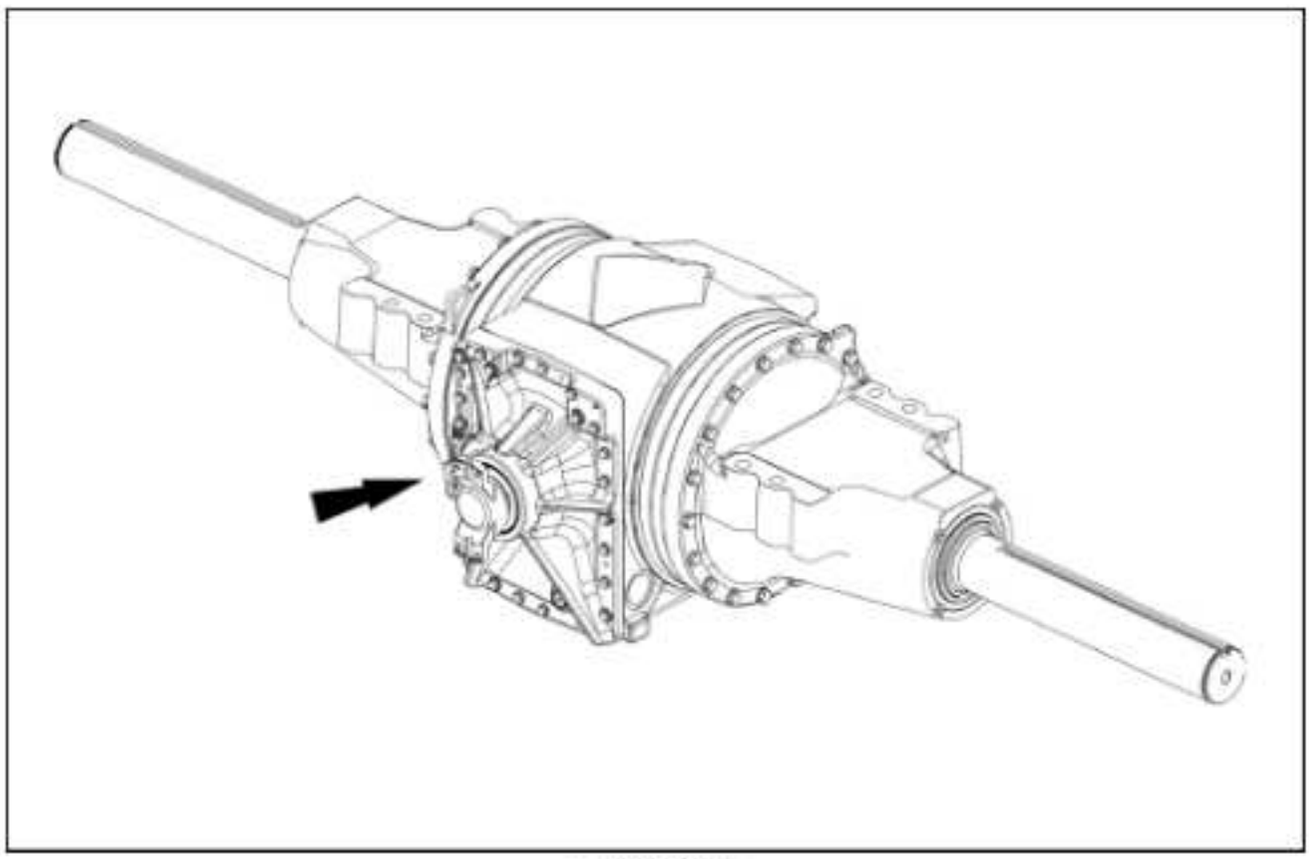
MidWestTech | Case Rowtrac, Steiger, Quadtrac 370, 420, 470, 500, 540, 580, 620 Tier... Order the manual at mid-west-tech.com >

Powered rear axle - Dynamic description - 425 Series axles

Steiger® 370	NA
Steiger® 420	NA
Steiger® 470	NA

The axle assembly and components are very heavy. Dry weight of the axle assembly is approximately **1500 kg** (**3300 lb**). Be sure all lifting devices and/or support stands are in good shape and have the capacity to lift and/or support the applied load.
The center housing for the differential must be rotated to different positions several times during the disassembly and assembly procedures. For this reason it is recommended that the differential housing assembly should be mounted in a rotating type repair stand. If a rotating repair stand is not available, axle repair should be performed on a clean concrete shop floor with access to an overhead hoist.
Clean and inspect all components and parts during the disassembly procedure for damage or wear. Replace any damaged or worn parts found.
The axle is metric designed. Gaskets are not used for sealing flange joints in this axle. Use only anaerobic type sealant on all mating surfaces requiring sealing. Follow label directions for cleaning and usage.
All repairs to the axle will require that the axle assembly be removed from the tractor frame. Always refer to the axle model, part number and serial number when ordering replacement parts.

The axle model number and serial number are stamped on a metal plate attached to the axle assembly in the location shown. Always reference these numbers before ordering replacement parts.



RGPH10FWD471ABJ 1

Axle identification plate location

MidWestTech | Case Rowtrac, Steiger, Quadtrac 370, 420, 470, 500, 540, 580, 620 Tier... Order the manual at mid-west-tech.com >

Wiring harnesses - Electrical schematic sheet 73 - Electronic steering (AST)

Type	Component	Connector / Link	Description
Sensor	**B-362**	C362	STEERING ANGLE SENSOR
Sensor	**B-638**	C638	STEERING WHEEL POSITION SENSOR
Resistor	**R-639**		ROADING SWITCH RESISTOR
Switch	**S-656**	C656	STEERING ROADING SWITCH
Sub-Assembly	**Z-361**	C361	ELECTRONIC STEERING VALVE

MidWestTech | Case Rowtrac, Steiger, Quadtrac 370, 420, 470, 500, 540, 580, 620 Tier 4B Tractor Service Manual | Publication 48193194

Order the manual at mid-west-tech.com >

5. Disassemble the PTO clutch, and replace worn clutch plates and other components as required. See PTO section in this repair manual.

   Test operation of the PTO.

   A. Fault code does not re-display. Clear all fault codes, and return unit to field operation.

   B. Fault code re-displays. Submit a concern to ASIST.

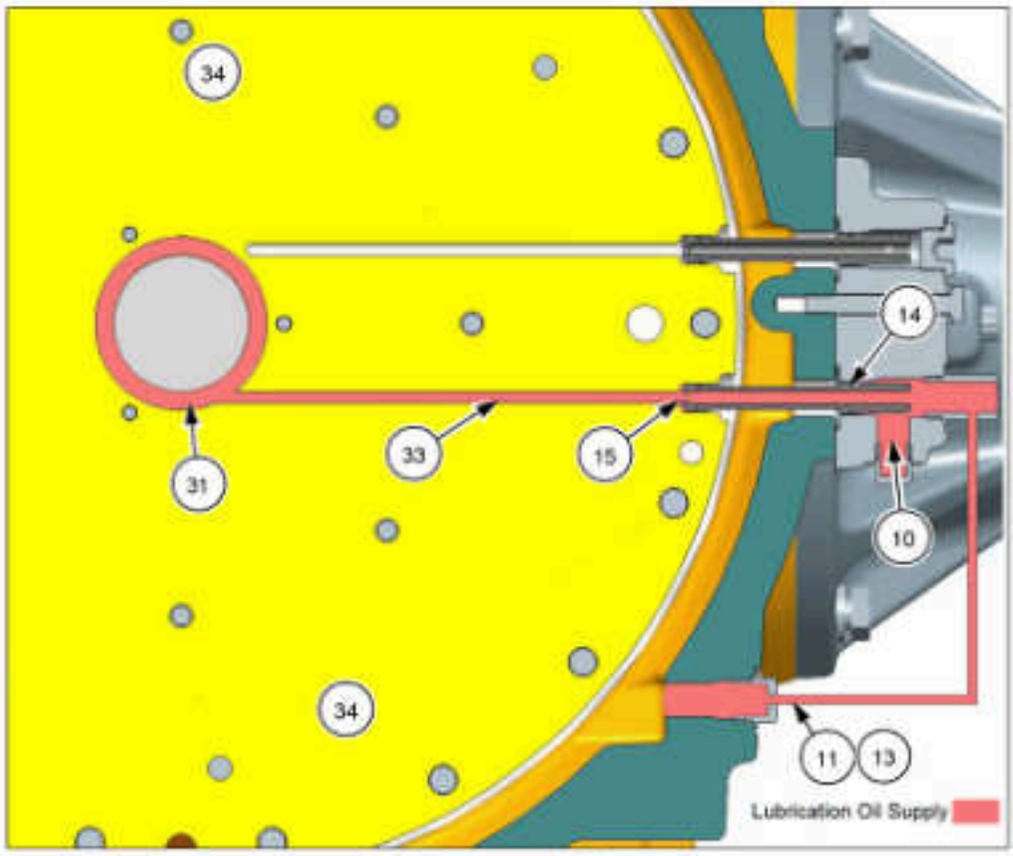
6. Replace the PTO shaft speed sensor.

   Test operation of the PTO.

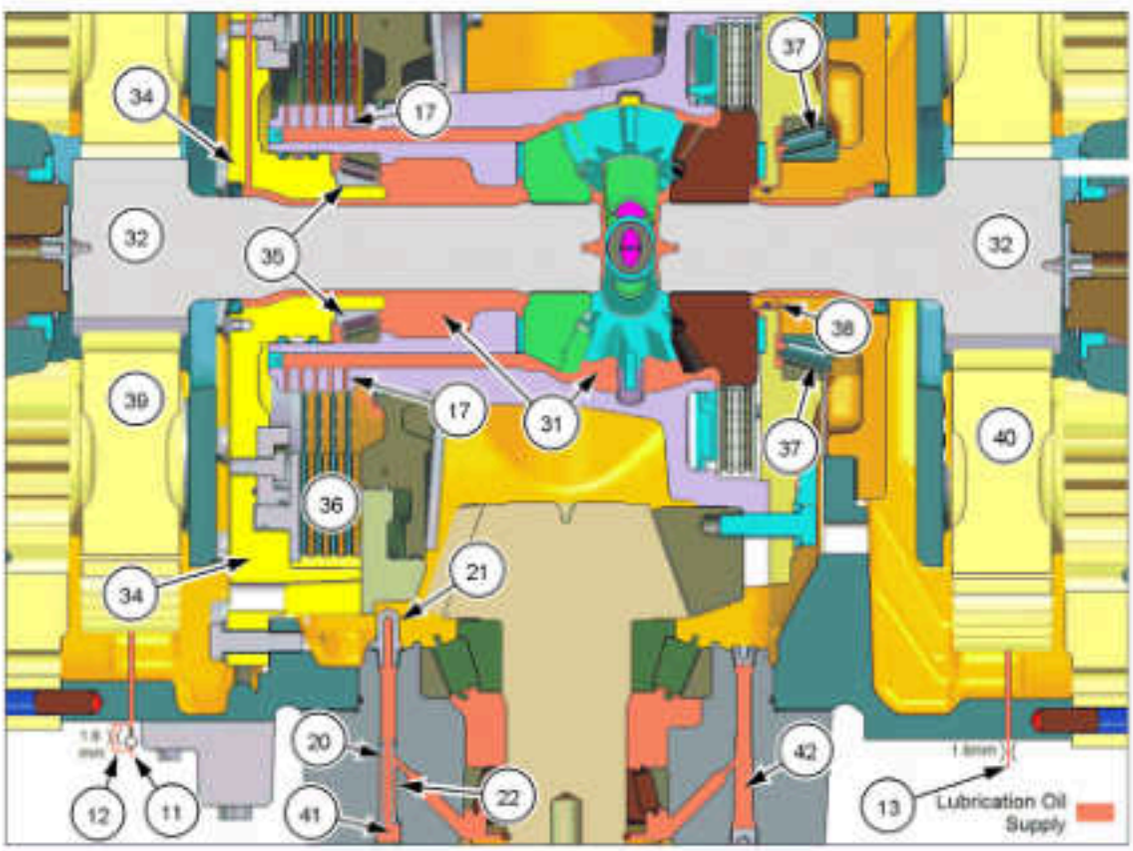
   A. Fault code does not re-display. Clear all fault codes, and return unit to field operation.

   B. Fault code re-displays. Submit a concern to ASIST.

MidWestTech | Case Rowtrac, Steiger, Quadtrac 370, 420, 470, 500, 540, 580, 620 Tier... Order the manual at mid-west-tech.com >

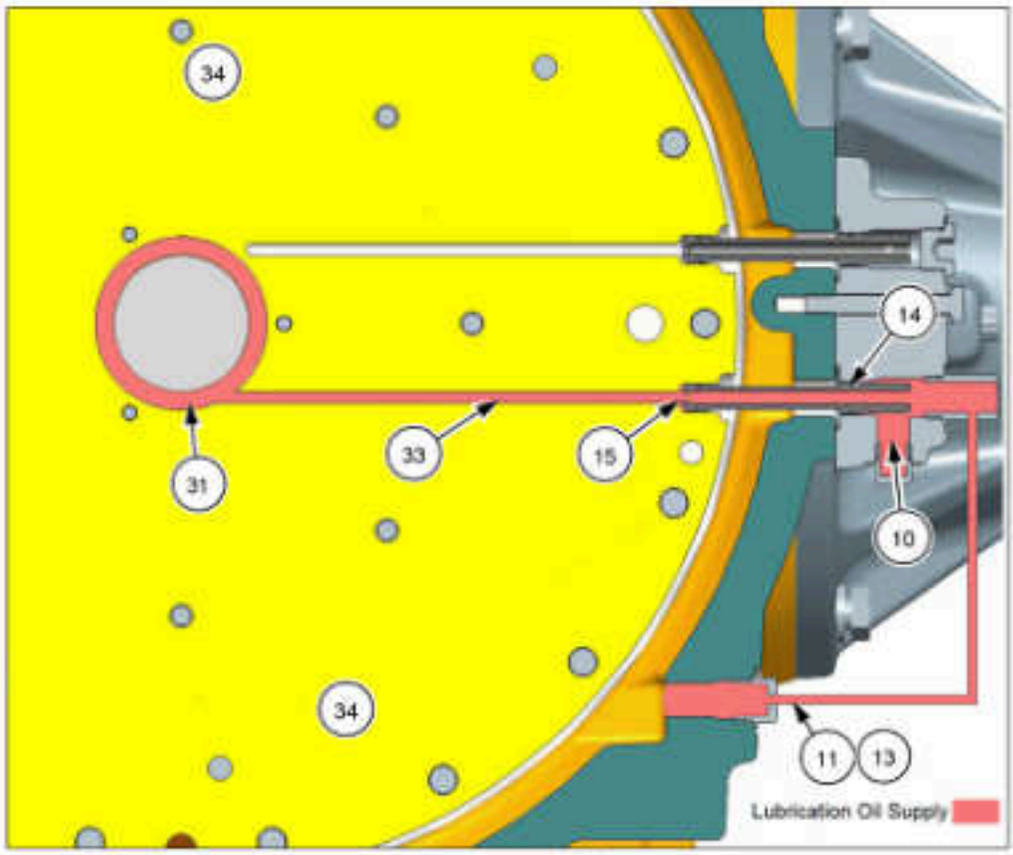


RAIL14TR00007FA 15

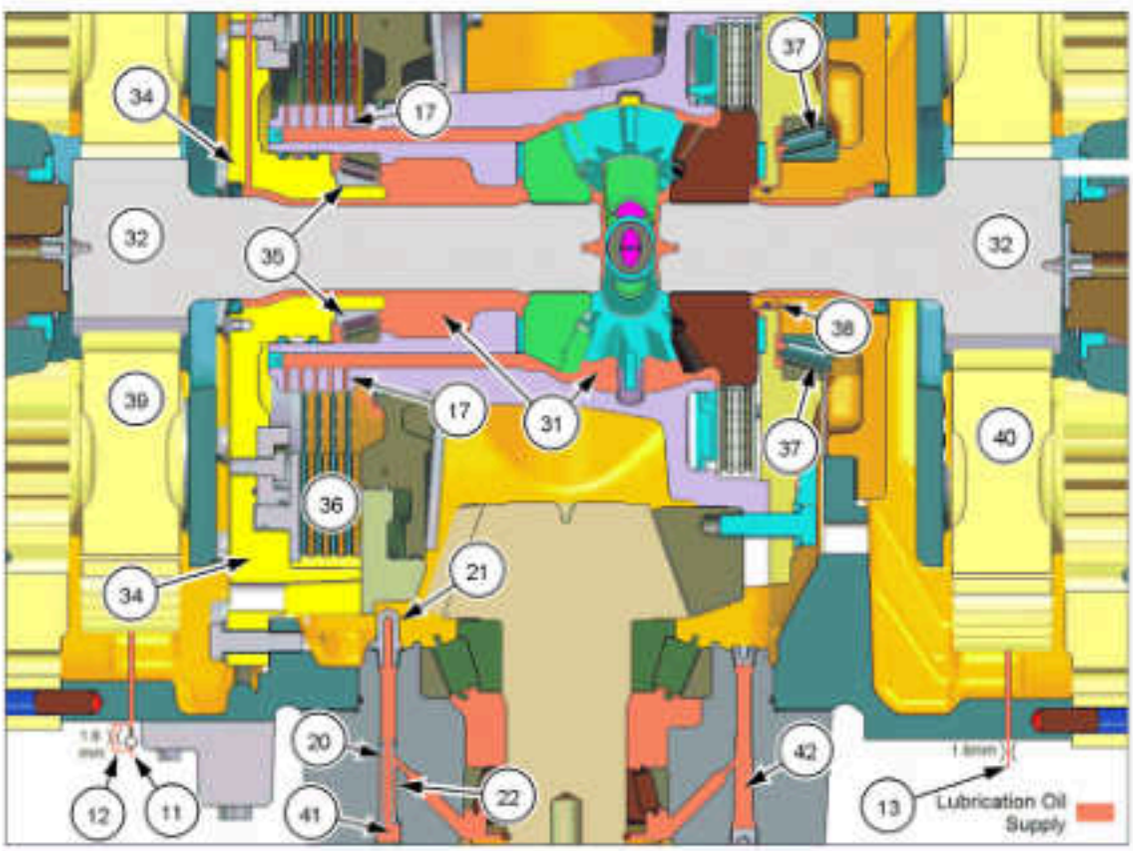


RAIL14TR00008FA 16

MidWestTech | Case Rowtrac, Steiger, Quadtrac 370, 420, 470, 500, 540, 580, 620 Tier... Order the manual at mid-west-tech.com >

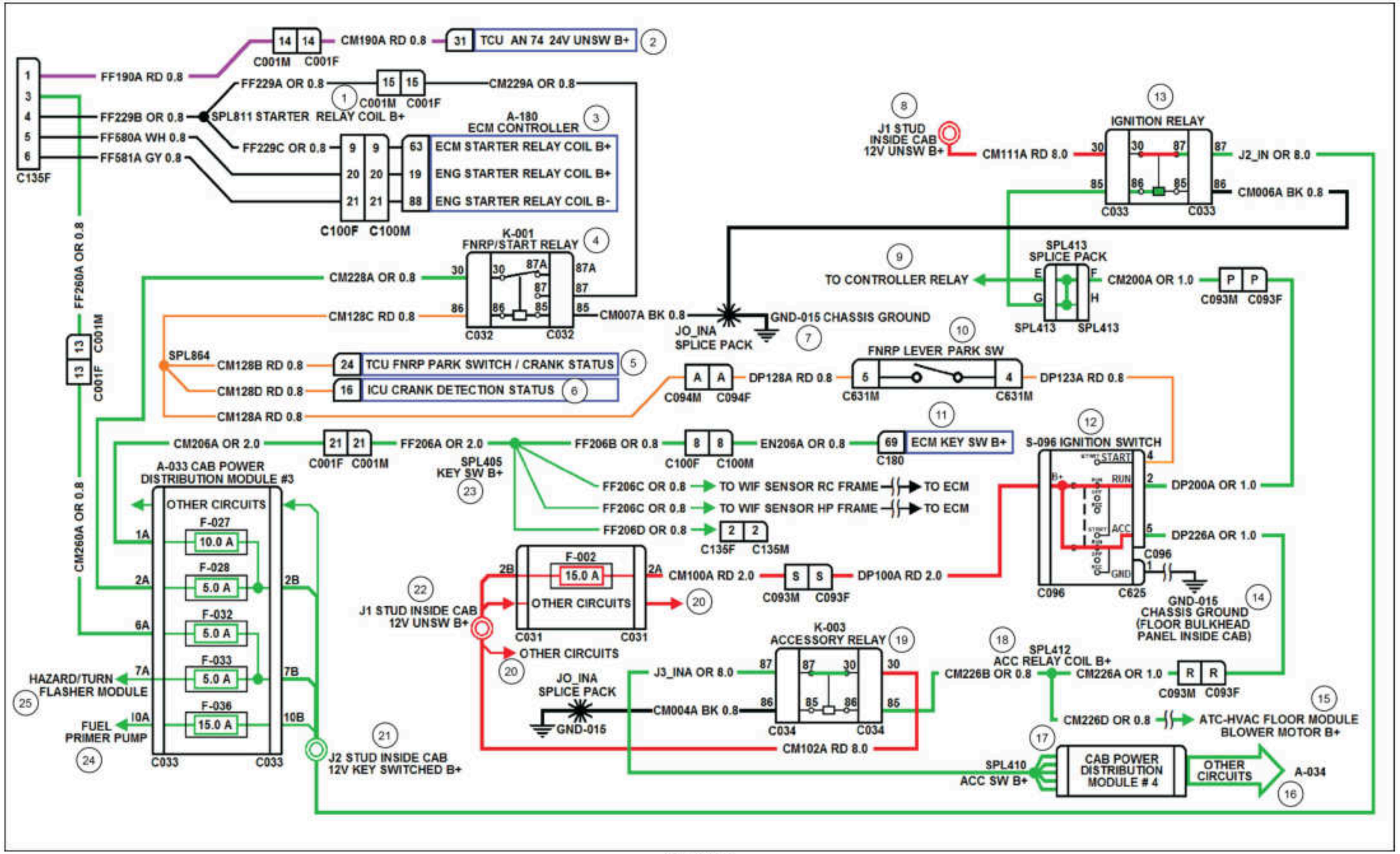


RAIL14TR00007FA 15



RAIL14TR00008FA 16

MidWestTech | Case Rowtrac, Steiger, Quadtrac 370, 420, 470, 500, 540, 580, 620 Tier... Order the manual at mid-west-tech.com >



MidWestTech | Case Rowtrac, Steiger, Quadtrac 370, 420, 470, 500, 540, 580, 620 Tier 4B Tractor Service Manual | Publication 48193194
Order the manual at mid-west-tech.com >