WSM

WORKSHOP MANUAL

TRACTOR

L2800,L3400

KiSC issued 08, 2007 A

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GENERAL

CONTENTS

1. TRACTOR IDENTIFICATION G-1
2. GENERAL PRECAUTIONS G-2
3. HANDLING PRECAUTIONS FOR ELECTRICAL PARTS AND WIRING .. G-3
   [1] WIRING G-3
   [2] BATTERY G-5
   [3] FUSE G-5
   [4] CONNECTOR G-5
4. LUBRICANTS, FUEL AND COOLANT G-7
5. TIGHTENING TORQUES G-9
   [1] GENERAL USE SCREWS, BOLTS AND NUTS G-9
6. MAINTENANCE G-10
7. CHECK AND MAINTENANCE G-13
   [1] DAILY CHECK G-13
   [2] CHECK POINTS OF INITIAL 50 HOURS G-14
   [3] CHECK POINTS OF EVERY 50 HOURS G-21
   [4] CHECK POINTS OF EVERY 100 HOURS G-25
   [5] CHECK POINTS OF EVERY 200 HOURS G-30
   [6] CHECK POINTS OF EVERY 400 HOURS G-32
   [7] CHECK POINTS OF EVERY 600 HOURS G-33
   [8] CHECK POINTS OF EVERY 800 HOURS G-33
   [9] CHECK POINTS OF EVERY 1500 HOURS G-33
   [10] CHECK POINTS OF EVERY 3000 HOURS G-33
   [11] CHECK POINTS OF EVERY 1 YEARS G-33
   [12] CHECK POINTS OF EVERY 2 YEARS G-34
   [13] OTHERS G-38
8. SPECIAL TOOLS G-40
   [1] SPECIAL TOOLS FOR ENGINE G-40
   [2] SPECIAL TOOLS FOR TRACTOR G-46
9. TIRES G-55
   [1] TIRE PRESSURE G-55
   [2] TREADS ADJUSTMENT G-56
      (1) Front Wheel G-56
      (2) Rear Wheels G-57
   [3] TIRE LIQUID INJECTION G-58
   [4] IMPLEMENT LIMITATIONS G-62

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1. TROUBLESHOOTING

Symptom	Probable Cause	Solution	Reference Page
Clutch Drags	Clutch pedal free play excessive	Adjust	2-S6
	Clutch disc boss spline sticking or rusted	Replace or remove rust	2-S11
	Dust on clutch disc generated from clutch disc facing	Remove rust	–
	Release fork broken	Replace	2-S11
	Grease or oil on clutch disc facing	Replace	2-S10, S11
	Clutch disc or pressure plate warped	Replace	2-S10, S11
	Pilot bearing sticking or worn	Replace	–
	Release lever improperly adjusted (L3400)	Adjust	2-S6, S15
Clutch Slips	Clutch disc excessively worn	Replace	2-S13
	Grease or oil on clutch disc facing	Replace	2-S10, S11
	Clutch disc or pressure plate warped	Replace	2-S10, S11
	Diaphragm spring weaken or broken	Replace	2-S10, S11
	Wire ring worn or broken (clutch cover side)	Replace (Pressure plate assembly)	2-S10, S11
	Release lever improperly adjusted (L3400)	Adjust	2-S6, S15
Chattering	Grease or oil on clutch disc facing	Replace	2-S10, S11
	Clutch disc or pressure plate warped	Replace	2-S10, S11
	Clutch disc boss spline worn or rusted	Replace or remove rust	2-S11
	Main shaft bent	Replace	3-S16, S17
	Pressure plate or flywheel face cracked or scored	Replace	2-S10, S11
	Clutch disc boss spline and gear shaft spline worn	Replace	2-S11, 3- S16, S17
	Diaphragm spring strength uneven or diaphragm spring broken	Replace	2-S10, S11
Rattle During Running	Clutch disc boss spline worn	Replace	2-S10, S11
	Thrust ball bearing worn or sticking	Replace	2-S11
	Pilot bearing worn or sticking	Replace	–
Clutch Squeaks	Thrust ball bearing worn or sticking	Replace	2-S11
	Pilot bearing worn or sticking	Replace	–
	Clutch disc excessively worn	Replace	2-S10, S11

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THREE POINT SYSTEM HYDRSULIC PUMP

Item		Factory Specification	Allowable Limit
Hydraulic Pump **Condition** • Engine speed : Approx. 2800 min^{-1} (rpm) (L2800) Approx. 2700 min^{-1} (rpm) (L3400) • Rated Pressure : (L2808, L3408) 15.7 to 16.2 MPa 160 to 165 kgf/cm^2 2276 to 2347 psi • Oil Temperature : 40 to 60 °C 104 to 140 °F	Delivery at No Pressure (L2800)	Above 26.6 L/min. 7.03 U.S.gals./min. 5.85 Imp.gals./min.	–
	Delivery at No Pressure (L3400)	Above 25.7 L/min. 6.79 U.S.gals./min. 5.65 Imp.gals./min.	–
	Delivery at Rated Pressure (L2800)	Above 24.7 L/min. 6.53 U.S.gals./min. 5.43 Imp.gals./min.	22.2 L/min. 5.86 U.S.gals./min. 4.88 Imp.gals./min.
	Delivery at Rated Pressure (L3400)	Above 23.9 L/min. 6.31 U.S.gals./min. 5.26 Imp.gals./min.	21.5 L/min. 5.68 U.S.gals./min. 4.73 Imp.gals./min.
Housing Bore	Depth of Scratch	–	0.09 mm 0.0035 in.
Bushing to Gear Shaft	Clearance	0.020 to 0.081 mm 0.0008 to 0.0032 in.	0.15 mm 0.0059 in.
Gear Shaft	O.D.	14.970 to 14.980 mm 0.5894 to 0.5898 in.	–
Bushing	I.D.	15.000 to 15.051 mm 0.5906 to 0.5926 in.	–
Side Plate	Thickness	2.48 to 2.50 mm 0.0976 to 0.0984 in.	2.40 mm 0.0945 in.

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RELIEF VALVE (THREE POINT SYSTEM)

Relief Valve **Condition** • Engine Speed : Maximum • Oil Temperature : 45 to 55 °C 113 to 131 °F	Setting Pressure	15.7 to 16.2 MPa 160 to 165 kgf/cm^2 2276 to 2347 psi	–

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CONTROL LINKAGE

Lift Arm	Free Play (at Maximum Raising Position)	10 to 15 mm 0.39 to 0.58 in.	–

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LIGHTING SYSTEM (Continued)

Symptom	Probable Cause	Solution	Reference Page
Hazard and Turn Signal Light Does Not Light	Fuse blown (10 A)	Replace	G-39
	Bulb blown	Replace	G-39
	Wiring harness disconnected or improperly connected (between main switch **M** terminal and hazard unit, between hazard unit and hazard switch **C** terminal, between hazard unit and turn signal switch **R** or **L** terminal, between hazard unit and hazard and turn signal lights)	Repair or replace	–
	Hazard unit defective	Replace	9-S21
	Hazard switch defective	Replace	9-S20
	Combination switch (turn signal switch) defective	Replace	–
Hazard and Turn Signal Indicator Lamp Does Not Light	Bulb blown	Replace	G-39
	Wiring harness disconnected or improperly connected	Repair or replace	–
Hazard and Turn Signal Light Does Not Go ON and OFF	Flasher unit defective	Replace	9-S21
Work Light Does Not Light	Fuse blown (10 A)	Replace	G-39
	Bulb blown	Replace	G-39
	Wiring harness disconnected or improperly connected (between starter motor **B** terminal and work light)	Repair or replace	–

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EASY CHECKER

Engine Oil Pressure Lamp Lights Up When Engine Is Running	Engine oil pressure too low	Repair engine	1-S14
	Engine oil insufficient	Replenish	G-14
	Engine oil pressure switch defective	Replace	–
	Short circuit between engine oil pressure switch lead and chassis	Repair	–
	Circuit in hour meter defective	Replace	–
Engine Oil Pressure Lamp Does Not Light When Main Switch Is Turned ON and Engine Is Not Running	Bulb blown	Replace	–
	Engine oil pressure switch defective	Replace	–
	Wiring harness disconnected or improperly connected (between panel board and engine oil pressure switch)	Repair or replace	–
	Circuit in hour meter defective	Replace	–

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Bonnet and Front Cover

1. Disconnect the battery negative cable.
2. Disconnect the connector for head light.
3. Remove bonnet (1) and side cover (2).
4. Remove the front cover (3).

(1) Bonnet
(2) Side Cover
(3) Front Cover

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Steering Wheel and Rear Bonnet

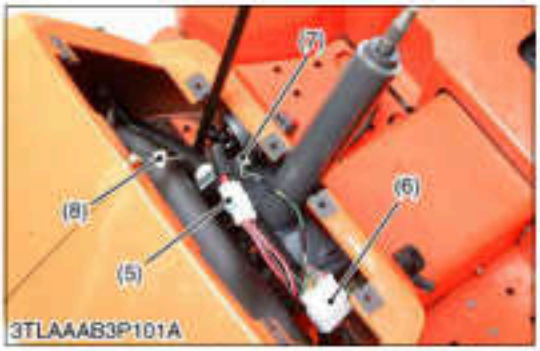
1. Remove the steering wheel (1) with steering puller.
2. Remove the throttle grip (2).
3. Disconnect the hour-meter cable (8).
4. Remove the meter panel (3).
5. Disconnect the **4P** connector (5) for main switch.
6. Disconnect the **8P** connector (6) for combination switch.
7. Disconnect the **4P** connector (7) for hazard switch.
8. Remove the rear bonnet (4).

(When reassembling)

Tightening torque	Steering wheel mounting nut	29.4 to 49.0 N·m 3.0 to 5.0 kgf·m 21.7 to 36.2 ft-lbs

(1) Steering Wheel
(2) Throttle Grip
(3) Meter Panel
(4) Rear Bonnet
(5) **4P** Connector
(6) **8P** Connector
(7) 4P Connector
(8) Hour-meter Cable

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Suction Pipe and Steering Joint Shaft

1. Disconnect the suction hose (1) from hydraulic pump side.
2. Remove the screw (2) and steering joint shaft support (5).
3. Remove the steering joint shaft (3).
4. Remove the throttle rod (4).

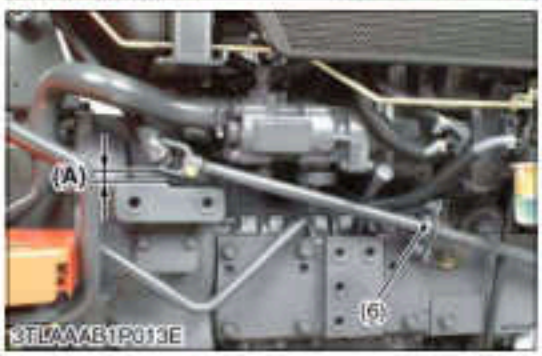
(When reassembling)

- Lift the universal joint so that there should be a clearance **(A)** of more than 5 mm (0.19 in.) between the universal joint and flywheel housing.
  Then fit the support (5) in position.

Tightening torque	Delivery pipe joint bolt	49 to 69 N·m 5.0 to 7.0 kgf·m 36.1 to 50.6 ft-lbs

(1) Suction Hose
(2) Screw
(3) Steering Joint Shaft
(4) Throttle Rod
(5) Steering Joint Shaft Support
(A) Clearance

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Outer Components

1. Remove the seat (1).
2. Remove the grip (2), (4), (7).
3. Remove the auxiliary change lever guide (3) and position control lever guide (6).
4. Remove the center cover (5).

(1) Seat
(2) Grip
(3) Auxiliar Change Lever Guide
(4) Grip
(5) Center Cover
(6) Position Control Lever Guide
(7) Grip

W1019004



Wirings

1. Disconnect the wirings (2).
2. Remove the fender rear stay (1).
3. Remove the support (4).
4. Remove the delivery pipe joint bolt (3).

(When reassembling)

- Install the copper washers firmly.

Tightening torque	Delivery pipe joint bolt	39.0 to 49.0 N·m 4.5 to 5.0 kgf·m 32.5 to 36.2 ft-lbs

(1) Fender Rear Stay
(2) Wirings
(3) Delivery Pipe Joint Bolt
(4) Support

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Hydraulic Cylinder

1. Loosen and remove the hydraulic cylinder assembly mounting screws and nuts.
2. Support the hydraulic cylinder assembly with nylon lift strap and hoist, and then take out it.

(When reassembling)

- Apply liquid gasket (Three Bond 1208D or equivalent) to joint face of the hydraulic cylinder assembly and transmission case after eliminate the water, oil and stuck liquid gasket.
- When replacing the hydraulic cylinder assembly mounting stud bolts, apply liquid lock (Three Bond 1372 or equivalent) to **"A"** portion of the stud bolt.

Tightening torque	Hydraulic cylinder assembly mounting stud bolts	34.3 to 49.0 N·m 3.5 to 5.0 kgf·m 25.3 to 36.2 ft-lbs
	Hydraulic cylinder assembly mounting screws and nuts	77.4 to 90.2 N·m 7.9 to 9.2 kgf·m 57.1 to 66.5 ft-lbs

■ **NOTE**

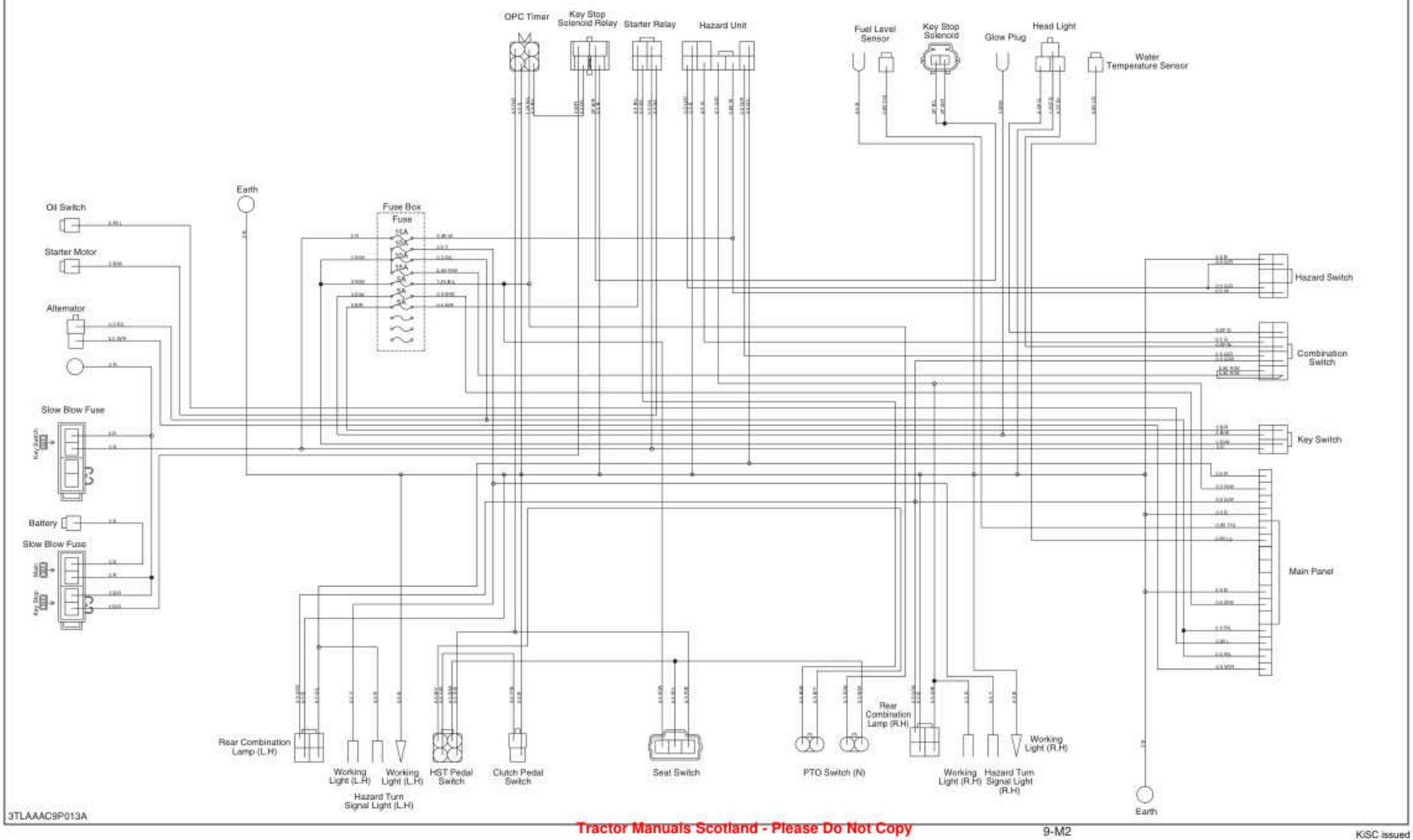
- **Reassemble the hydraulic cylinder assembly to the tractor, be sure to adjust the position control feedback rod. (See page 8-S12.)**

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