# **CATERPILLAR®**

# Service Repair Manual

## **Models**

# 14G MOTOR GRADER

Model: 14G MOTOR GRADER 96U

Configuration: 14G MOTOR GRADER 96U04298-07045 (MACHINE) POWERED BY 3306 ENGINE

#### Disassembly and Assembly 14G MOTOR GRADER POWER TRAIN

Media Number -SENR7068-02

Publication Date -01/10/2004

Date Updated -03/11/2004

SENR70680012

### **Differential**

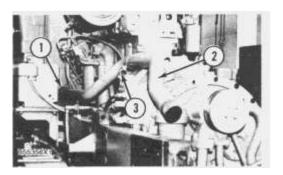
**SMCS** - 3258-11; 3258-12; 3258-15; 3258-16

### **Remove Differential**

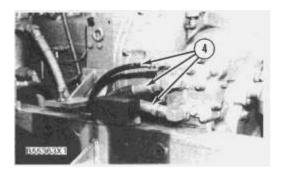
Tools Needed		
FT1121	Lifting Bracket	1

#### START BY:

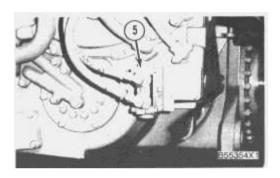
- a) remove fuel tank
- b) remove fan drive
- c) remove radiator and guard
- d) remove air tank
- e) remove rear bumper
- f) remove parking brake rotochamber
- g) remove axles



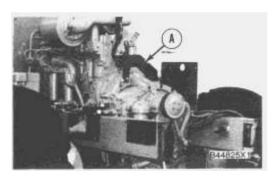
1. Loosen clamp that fastens hose (1) to tube (2). Remove bolt that fastens bracket (3) to flywheel housing and remove tube (2).



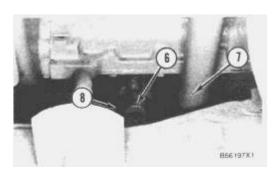
**2.** Drain the oil from the transmission. Put identification on oil lines (4) for assembly purposes. Disconnect oil lines from the relief control valve.



**3.** Remove two bolts and move valve assembly (5) from the transfer gear case. Fasten assembly to frame so it is not damaged when the differential is removed.

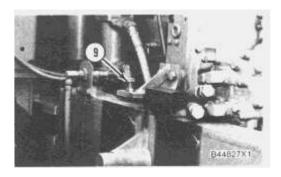


**4.** Remove lifting plates and install tool (A) and a hoist on the transfer gear case. Remove the bolts that fasten the transfer gear to the flywheel housing.

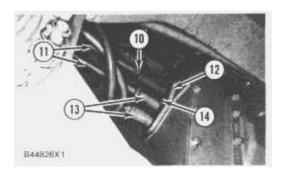


**5.** Disconnect the hose assembly from the top of the differential lock control valve. Disconnect wire (8) from the wiring harness. Remove two bolts and the differential lock control valve (6) from the differential case.

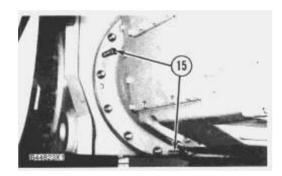
**6.** Remove tube assembly (7) and the O-ring seal from the top of the differential case.



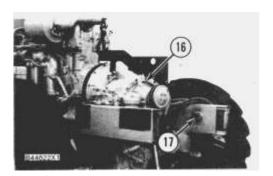
7. Loosen the nuts on bolts (9) on each side of the flywheel housing. Turn bolt (9) until they are against the frame. Tighten the nuts on the bolts.



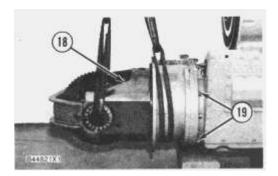
- **8.** Loosen nuts (10) and slide them over cables (11). Remove bolts (14). Slide retainer (12) over cables (11).
- **9.** Remove couplings (13) from the transmission housing with a screwdriver. Lift the transmission control cables out of the notches in the links in the transmission control valves.



**10.** Install three 5/8"-11 NC forcing screws (15) in the differential carrier. Remove the nuts that fasten the differential carrier to the bevel gear case. Move the differential away from the bevel gear case with the forcing screws.



**11.** Remove bracket (17) from the frame and the differential and transmission as a unit (16). The weight is 2650 lb. (1202 kg).

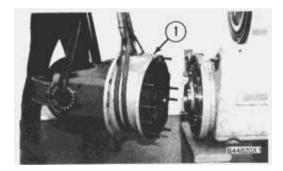


- 12. Fasten a hoist to the differential as shown.
- **13.** Remove nuts (19) that hold differential (18) to the transmission.
- 14. Remove differential (18). The weight is 650 lb. (295 kg).

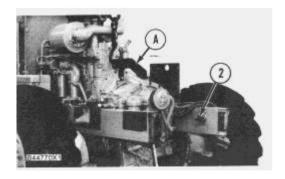
### **Install Differential**

	То	ols Needed	A
FT1121	Lifting Bracket		1

**NOTE:** Inspect all O-ring seals and make any replacements if necessary.



- **1.** Fasten a hoist and nylon straps to the differential as shown.
- 2. Put the O-ring seals in position and install differential (1) on the transmission.



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