TM12566 - 380GLC Excavator Travel Gear Case Remove and Install

Travel Gear Case Remove and Install

-: Specifications

SPECIFICATIONS		
Hydraulic Oil Tank Capacity (approximate)	298 L 78.7 gal.	
Travel Gear Case Assembly Weight (approximate)	490 kg 1090 lb.	
Cap Screw Torque	630 N·m 465 lbft.	
Travel Gear Case Cover Cap Screw Torque	180 N·m 133 lbft.	

-: Essential Tools

ESSENTIAL TOOLS
DF1063 Lifting Bracket
DFT1130 Adapter

NOTE:

Travel gear case, travel motor, and park brake are enclosed in same housing. All three components must be removed as an assembly.

- 1. Park and prepare machine for service. See Park and Prepare for Service Safely . (Group 0001.)
- 2. Remove track chain. See Track Chain Remove and Install . (Group 0130.)

3.

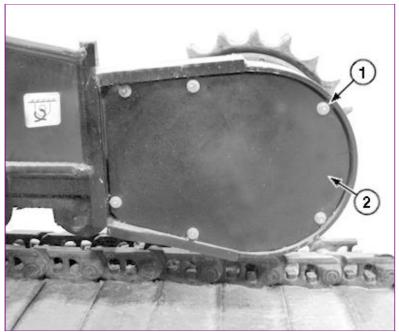


Avoid personal injury from high pressure fluid. High pressure release of oil from pressurized system can cause serious burns or penetrating injury. Relieve pressure from hydraulic system before servicing.

Release hydraulic oil tank pressure by pressing pressure release button on top of hydraulic oil tank. <u>See Hydraulic Oil Tank Pressure Release Procedure</u>. (Group 9025-25.)

4. Apply vacuum or drain hydraulic oil tank. See Apply Vacuum to Hydraulic Oil Tank (Group 3360.) See Drain and Refill Hydraulic Tank Oil . (Operator's Manual.)

Item	Measurement	Specification
Hydraulic Oil Tank	Capacity (approximate)	298 L 78.7 gal.

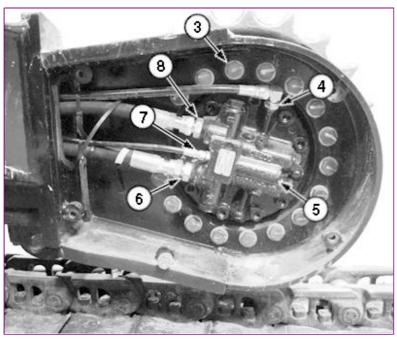


TX1089298A-UN: Travel Motor Cover

LEGEND:

- 1 Cap Screw (6 used) 2 Travel Motor Access Panel

Remove cap screws (1) and travel motor access panel (2).



TX1089300A-UN: Travel Motor

LEGEND:

6.

- 3 Cap Screw (20 used)
- 4 Travel Motor Drain Hose

- 5 Travel Gear Case Assembly
 6 Travel Motor Pressure Hose (forward)
 7 Travel Motor Speed Change Valve Hose
 8 Travel Motor Pressure Hose (reverse)

5.



Prevent possible crushing injury from heavy component. Use appropriate lifting device.



TX1089304A-UN: Travel Gear Case Assembly

LEGEND:

5 - Travel Gear Case Assembly

Support travel gear case assembly (5) with DF1063 Lift Bracket and DFT1130 Adapter. See DF1063 Lift Bracket and see DFT1130 Adapter. (Group 9900.)

Item	Measurement	Specification
Travel Gear Case Assembly	Weight (approximate)	490 kg

- 8. Apply alignment marks between travel gear case assembly and track frame to aid during installation.
- 9. *NOTE*:

Travel gear case assembly is shown removed with sprocket for balance.

Using appropriate lifting device, remove cap screws (3) and travel gear case assembly.

- 10. Remove sprocket. See Sprocket Remove and Install . (Group 0130.)
- 11. Clean, inspect, and replace parts as necessary.
 - o See Travel Gear Case Disassemble and Assemble . (Group 0250.)
 - o See Travel Motor and Park Brake Disassemble and Assemble . (Group 0260.)
 - o See Park Brake Valve Disassemble and Assemble . (Group 0260.)



Prevent possible crushing injury from heavy component. Use appropriate lifting device.

Using appropriate lifting device, install travel gear case assembly.

Item	Measurement	Specification
Travel Gear Case Assembly	Weight (approximate)	490 kg 1090 lb.

14. Align marks on travel gear case assembly to mark on track frame. Install cap screws and tighten to specification.

Item	Measurement	Specification
Cap Screw	Torque	630 N·m 465 lbft.

15. *NOTE:*

Travel motor drain hose (4) will remain capped and plugged until travel motor start-up procedure is performed.

Connect hydraulic hoses (6, 7, and 8). See Travel Hydraulic System Line Connection . (Group 9025-15.)

16. Remove vacuum or fill hydraulic oil tank. <u>See Apply Vacuum to Hydraulic Oil Tank</u>. (Group 3360.) <u>See Drain and Refill Hydraulic Tank Oil</u>. (Operator's Manual.)

Item	Measurement	Specification
Hydraulic Oil Tank	Capacity (approximate)	298 L 78.7 gal.

17. Perform travel motor start-up procedure and connect travel motor drain hose (4). See Travel Motor and Park Brake Start-Up Procedure . (Group 0260.)

18. **IMPORTANT:**

Hydraulic pumps will be damaged if not filled with oil before starting. Procedure must be performed to fill pump housings whenever oil has been drained from pumps or hydraulic oil tank.

If hydraulic oil tank was drained, perform pump start-up procedure. See Pump 1 and 2 Start-Up Procedure (Group 3360.)

- 19. Install track chain. See Track Chain Remove and Install . (Group 0130.)
- 20. Operate machine and check for leaks.
- 21. Install travel motor access panel and cap screws. Tighten to specification.

Item	Measurement	Specification
Travel Gear Case Cover Cap Screw	Torque	180 N·m 133 lbft.

Travel Gear Case Disassemble and Assemble

Disassemble Travel Gear Case

-: Specifications

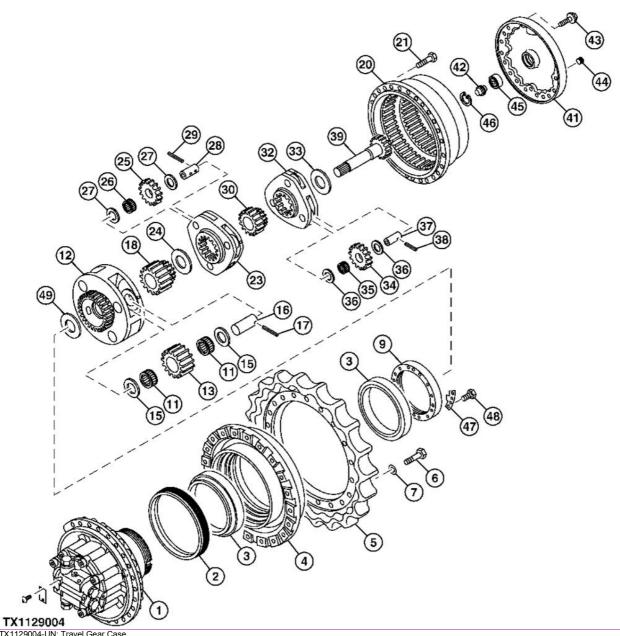
SPECIFICATIONS	
Travel Gear Case Assembly Weight (approximate)	490 kg 1090 lb.
Gear Oil Capacity	10.5 L 2.77 gal.
Ring Gear Weight (approximate)	53 kg 120 lb.
Third Stage Planetary Carrier Weight (approximate)	61 kg 135 lb.
Drum Weight (approximate)	71 kg 160 lb.
Sprocket Weight (approximate)	69 kg 155 lb.
Tapered Roller Bearing Temperature	50—70°C 122—158°F
Sprocket-to-Drum Cap Screw Torque	680 N·m 500 lbft.
Bearing Nut Torque	500 N·m 370 lbft.
Lock Plate Cap Screw Torque	90 N·m 66 lbft.
Ring Gear-to-Drum Cap Screw Torque	270 N·m 200 lbft.
Cover-to-Ring Gear Cap Screw Torque	110 N·m 83 lbft.

-: Essential Tools

ESSENTIAL TOOLS
JT01748 Lifting Bracket
DFT1305 Travel Gear Case Nut Wrench
DFT1109 Holding Bar

-: Other Material

OTHER MATERIAL
271 Loctite ® Thread Lock and Sealer (high strength)
277 Loctite ® Rigid Form-In-Place Gasket
242 Loctite ® Thread Lock and Sealer (medium strength)



TX1129004-UN: Travel Gear Case

LEGEND:

- 1 Travel Motor
 2 Metal Face Seal
 3 Tapered Roller Bearing (2 used)
 4 Drum
 5 Sprocket
 6 Cap Screw (22 used)
 7 Lock Washer (22 used)
 9 Bearing Nut
 11 Needle Bearing (8 used)
 12 Third Stage Planetary Carrier
 13 Planetary Gear (4 used)
 15 Thrust Plate (8 used)
 16 Pin Fastener (4 used)
 17 Spring Pin (4 used)
 18 Third Stage Sun Gear
 20 Ring Gear
 21 Cap Screw (34 used)
 23 Second Stage Planetary Carrier
 24 Spacer
 25 Planetary Gear (3 used)
 26 Needle Bearing (3 used)
 27 Thrust Plate (6 used)
 28 Pin Fastener (3 used)
 29 Spring Pin (3 used)
 30 Second Stage Sun Gear
 22 First Stage Planetary Carrier
 33 Spacer
 34 Planetary Gear (3 used)
 35 Needle Bearing (3 used)
 36 Thrust Plate (6 used)
 37 Pin Fastener (3 used)
 38 Spring Pin (3 used)
 39 Shaft
 41 Cover
 42 Stopper

- 43 Cap Screw (20 used) 44 Plug (3 used) 45 Ball Bearing 46 Retaining Ring 47 Lock Plate 48 Cap Screw (2 used)
- 49 Spacer



Prevent possible crushing injury from heavy component. Use appropriate lifting device.

Remove travel gear case assembly using appropriate lifting device. See Travel Gear Case Remove and Install . (Group 0250.)

Item	Measurement	Specification
Travel Gear Case Assembly	Weight (approximate)	490 kg 1090 lb.

2. Drain gear oil. See Drain and Refill Travel Gear Case Oil. (Operator's Manual.)

Item	Measurement	Specification
Gear Oil	Capacity	10.5 L 2.77 gal.

- 3. Place travel gear case assembly on workbench with travel motor (1) side facing down.
- 4. Apply alignment marks at mating positions of cover (41), ring gear (20), and drum (4).
- 5. Remove cap screws (43) and cover.
- 6. Apply alignment marks at mating positions and remove shaft (39), spacer (33), and first stage planetary carrier (32) from ring gear (20).
- Apply alignment marks at mating positions and remove spring pins (38), pin fasteners (37), thrust plates (36), needle bearings (35), and planetary gears (34) from first stage planetary carrier
- 8. Apply alignment marks at mating positions and remove second stage sun gear (30), spacer (24), and second stage planetary carrier (23) from ring gear (20).
- Apply alignment marks at mating positions and remove spring pins (29), pin fasteners (28), thrust plates (27), needle bearings (26), and planetary gears (25) from second stage planetary
- 10. Apply alignment marks at mating positions and remove third stage sun gear (18) from third stage planetary carrier (12).

CAUTION:

Prevent possible crushing injury from heavy component. Use appropriate lifting device.

Install JT01748 Lifting Brackets to ring gear. Apply alignment marks at mating positions. Remove cap screws (21) and ring gear.

Item	Measurement	Specification
Ring Gear	Weight (approximate)	53 kg 120 lb.



Prevent possible crushing injury from heavy component. Use appropriate lifting device.

Remove third stage planetary carrier (12) from drum (4).

Item	Measurement	Specification
Third Stage Planetary Carrier	Weight (approximate)	61 kg

- 13. Apply alignment marks at mating positions and remove spring pins (17), pin fasteners (16), thrust plates (15), needle bearings (11), spacer (49), and planetary gears (13) from third stage planetary carrier (12).
- 14. Remove cap screws (48). Remove lock plate (47) from bearing nut (9).
- 15. Remove bearing nut (9) using DFT1305 Travel Gear Case Nut Wrench and DFT1109 Holding Bar.

CAUTION:

16.

Prevent possible crushing injury from heavy component. Use appropriate lifting device.



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