Disassembly Procedure

	Table 1				
Required Tools					
Tool	Part Number	Part Description	Qty		
A	1P-2420	Transmission Repair Stand	1		
В	138-7573	Link Bracket	2		
C	1P-1863	Retaining Ring Pliers	1		
D	208-6033	Spanner Socket	1		
E	138-7574	Link Bracket	2		
F	5F-7366	Forcing Screw	1		
	1P-5546	Crossblock	1		
	1U-9889	Crossblock	1		
	1P-0520	Driver Group	1		
	6V-7888	Puller Leg	2		
	1H-3112	Puller Assembly	1		
	1P-5551	Adjustable Screw Assembly	1		
G	1U-7600	Slide Hammer Puller Gp	1		
G	8T-0266	Bolt	1		

Start By:

A. Remove the final drive. Refer to Disassembly and Assembly, "Final Drive - Remove".

Note: Cleanliness is an important factor. Before the disassembly procedure, the thoroughly clean the exterior of the component. This will prevent dirt from entering the internal mechanism.

Note: Some of the images that are in this procedure do not show the sprocket assembly that is attached to the final drive housing. If necessary, the weights that are given include the weight of the sprocket assembly.

1. Put an alignment mark across the sections of the final drive for assembly purposes. The parts must be reinstalled in the part's original locations.



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- 2. Fasten the final drive to Tooling (A), as shown. The weight of the final drive assembly is approximately 312 kg (688 lb).
- 3. Remove bolts (1) and the washers that hold the cover in position.



Illustration 2

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4. Remove the setscrews from the cover. Fasten Tooling (B) and a suitable lifting device to cover (2), as shown. Remove the cover. The weight of the cover is approximately 32 kg (70 lb).



 Remove bolts (3) . Remove gear (5) . Check plate (6) . Replace plate (6) if wear is shown. Remove plugs (4) from cover (2) .



6. Remove O-ring seal (7) from plugs (4).



Illustration 5

7. Remove gear (8). Remove spacer (9).



Illustration 6

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- 8. Remove retaining ring (10) with Tooling (C) . Remove washer (11) . Remove gear (12) . Remove bearing assembly (13) . Remove second washer (11) .
- 9. Repeat Step 8 for the remaining two gear assemblies.



Illustration 7

g00781401

10. Remove retaining ring (14).



g00781407

11. Remove carrier assembly (15).



Illustration 9

g01389593

12. Use a suitable press in order to remove the shafts from carrier assembly (15).



g00781412

13. Remove gear (16). Remove spacer (17).



Illustration 11

- 14. Remove retaining ring (18).
- 15. Remove carrier assembly (19).



- 16. Disassemble carrier assembly (19), as follows.
 - a. Drive spring pin (20) into planetary shaft (21) with a hammer and a punch.



Illustration 13 g00781476

- b. Remove planetary shaft (21).
- c. Remove spring pin (20) from planetary shaft (21) with a hammer and a punch.



- d. Remove thrust washers (22) and planetary gear (24) from the carrier assembly.
- e. Remove bearing (23) from planetary gear (24).
- 17. Repeat Steps 16.a through 16.e for the other two planetary.



g00781529

18. Remove gear (25). Remove spacer (26).



Illustration 16

- 19. Remove carrier assembly (27).
- 20. Use two people to remove carrier assembly (27) . The weight of the carrier assembly is approximately 38 kg (85 lb).
- 21. Disassemble carrier assembly (27), as follows.



g00781719

a. Drive spring pin (29) into planetary shaft (28) with a hammer and a punch.



Illustration 18

- b. Remove planetary shaft (28).
- c. Remove spring pin (29) from planetary shaft (28) with a hammer and a punch.



- d. Remove thrust washers (30) and planetary gear (32) from the carrier assembly.
- e. Remove two bearings (31) from the planetary gear.
- 22. Repeat Steps 21.a through 21.e for the other two planetary gears.



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23. Use two people to remove gear (33). The weight of gear is approximately 41 kg (90 lb).



Illustration 21

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24. Remove O-ring seal (34).



Illustration 22

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25. Remove bolts (35A) and plates (35B) .



Illustration 23 g01147651

26. Use Tooling (G) to remove dowel (37) from stopper plate (35).



Illustration 24



27. Secure Tooling (D) to stopper plate (35). Use Tooling (D) to remove stopper plate (35).



28. Use Tooling (E) and a suitable lifting device to remove housing (36). The weight of housing (36) is approximately 100 kg (220 lb).



Illustration 26

g01147951

29. Remove Duo-Cone seal (39A) from housing (38).



Illustration 27



- 30. Remove Duo-Cone seal (39B) from housing (36).
- 31. Use Tooling (F) in order to remove bearings (40) and (41) from housing (36).
- 32. If necessary, remove the final drive sprocket from the sprocket housing. Refer to Disassembly and Assembly, "Final Drive Sprocket Remove and Install".

Disassembly Procedure

Table 1						
Required Tools						
Tool	Part Number	Part Description	QTY			
Α	439-3940	Link Brackets	3			
В	439-3939	Link Bracket	2			
С	154-6183	Forcing Bolts	3			

Start By:

- A. Remove the final drive and the travel motor.
- 1. Put an alignment mark across the sections of the final drive for assembly purposes. The parts must be reinstalled in the original locations.



Illustration 1

g02151790

Note: The weight of the entire final drive assembly is approximately 550 kg (1200 lb).

2. Attach Tooling (A) and a suitable lifting device to cover (2). The weight of cover (2) is approximately 32 kg (70 lb). Remove bolts (1) and cover (2).



3. Remove bolts (3). Remove gear (5). Remove plate (6). Remove plugs (4) from cover (2).



Illustration 3

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4. Remove O-ring seal (7) from plugs (4).



g02151806

5. Remove sun gear (8), spacer (9), and planetary gear assembly (10).



Illustration 5

- 6. Remove retaining ring (11), washer (12), planetary gear (13), roller bearing (15), and washer (16) from carrier assembly (17).
- 7. Repeat Step 6 for the remaining two gear assemblies.
- 8. Remove retaining ring (14) and sun gear (18) from carrier assembly (17).



g02152150

9. Use a suitable press to remove the shafts from carrier assembly (17).



Illustration 7

- 10. Attach Tooling (A) and a suitable lifting device to planetary gear assembly (19). The weight of planetary gear assembly (19) is approximately 48 kg (105 lb). Remove planetary gear assembly (19).
- 11. Remove spacer (20).



- 12. Drive spring pin (21) into planetary shaft (22) with a suitable hammer and a suitable punch.
- 13. Remove planetary shaft (22), washer (24), roller bearing (25), planetary gear (26), and washer (27) from the planetary gear assembly (19).
- 14. Remove spring pin (21) from planetary shaft (22) with a suitable hammer and a suitable punch.
- 15. Remove retaining ring (23) and sun gear (28) from planetary gear assembly (19).



16. Attach Tooling (A) and a suitable lifting device to planetary gear assembly (29). The weight of planetary gear assembly (29) is approximately 38 kg (85 lb). Remove planetary gear assembly (29).



Illustration 10

- 17. Drive spring pin (30) into planetary shaft (31) with a suitable hammer and a suitable punch.
- 18. Remove planetary shaft (31), washer (32), roller bearings (33), planetary gear (34), and washer (35) from the planetary gear assembly (29).
- 19. Remove spring pin (30) from planetary shaft (31) with a suitable hammer and a suitable punch.



g02152399

- 20. Attach Tooling (A) and a suitable lifting device to ring gear (36). The weight of ring gear (36) is approximately 66 kg (146 lb). Remove ring gear (36).
- 21. Remove O-ring seal (37) from sprocket housing (38).



Illustration 12

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Illustration 13

g02152528

Note: Mark the orientation of coupling gear (40) for assembly purposes.

22. Remove bolts (39) from coupling gear (40). Use Tooling (C) in order to remove coupling gear (40) from the motor housing.



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23. Remove shims (41) from the motor housing.



Illustration 15

g02152552

Note: Upper bearing cone (42) and lower bearing cone (43) are a slip fit on the motor housing. While you remove sprocket housing (38) from the motor housing, upper bearing cone (42) may stay with the sprocket housing, or upper bearing cone (42) may stay on the motor housing.

24. Attach Tooling (B) and a suitable lifting device to sprocket housing (38). The weight of sprocket housing (38) is approximately 109 kg (240 lb). Remove sprocket housing (38) and upper bearing cone (42).



- 25. Remove dowels (45) from the motor housing.
- 26. Remove Duo-Cone seal (44) from the motor housing.
- 27. If lower bearing cone (43) remained on the motor housing, then remove the lower bearing cone.



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- 28. Remove Duo-Cone seal (46) from the sprocket housing.
- 29. If upper bearing cone (42) remained on the sprocket housing, then remove the upper bearing cone.
- 30. Remove the bearing cups from the sprocket housing.

(Type 1) Disassembly Procedure

Required Tools						
Tool	Part Number	Part Description	Qty			

m 1 1

A	439-3940	Link Brackets	3
В	154-6183	Forcing Bolts	3
С	439-3941	Link Brackets	3

Start By:

A. Remove the final drive and the travel motor.



Illustration 18

g02131413

1. Attach Tooling (A) and a suitable lifting device to cover (2). The weight of cover (2) is approximately 20 kg (45 lb). Remove bolts (1) and cover (2).



2. Remove plate (3) from cover (2).



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