550LC Excavator Repair

TECHNICAL MANUAL
550LC Excavator Repair

TM1808 28JUL05 (ENGLISH)

For complete service information also see:

550LC Excavator Operation and Tests.	**TM1807**
Alternators and Starting Motors.	**CTM77**
Undercarriage Appraisal Manual	**SP326**

Worldwide Construction And Forestry Division
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Follow Safe Procedures

Unsafe work practices are dangerous. Understand service procedure before doing work; do not attempt shortcuts.



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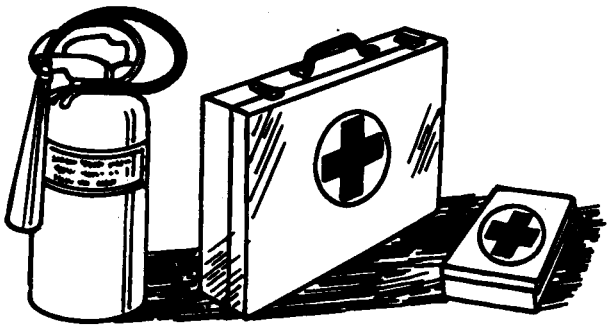
TX,05,FF1611 –19–14JUN90–1/1

Prepare for Emergencies

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



TS291 –UN–23AUG88

DX,FIRE2 –19–03MAR93–1/1

Handle Fluids Safely—Avoid Fires

Handle fuel with care; it is highly flammable. Do not refuel the machine while smoking or when near open flame or sparks. Always stop engine before refueling machine. Fill fuel tank outdoors.



TS202 –UN–23AUG88

TX,05,FF1622 –19–14JUN90–1/2

Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.

Make sure machine is clean of trash, grease, and debris.

Do not store oily rags; they can ignite and burn spontaneously.

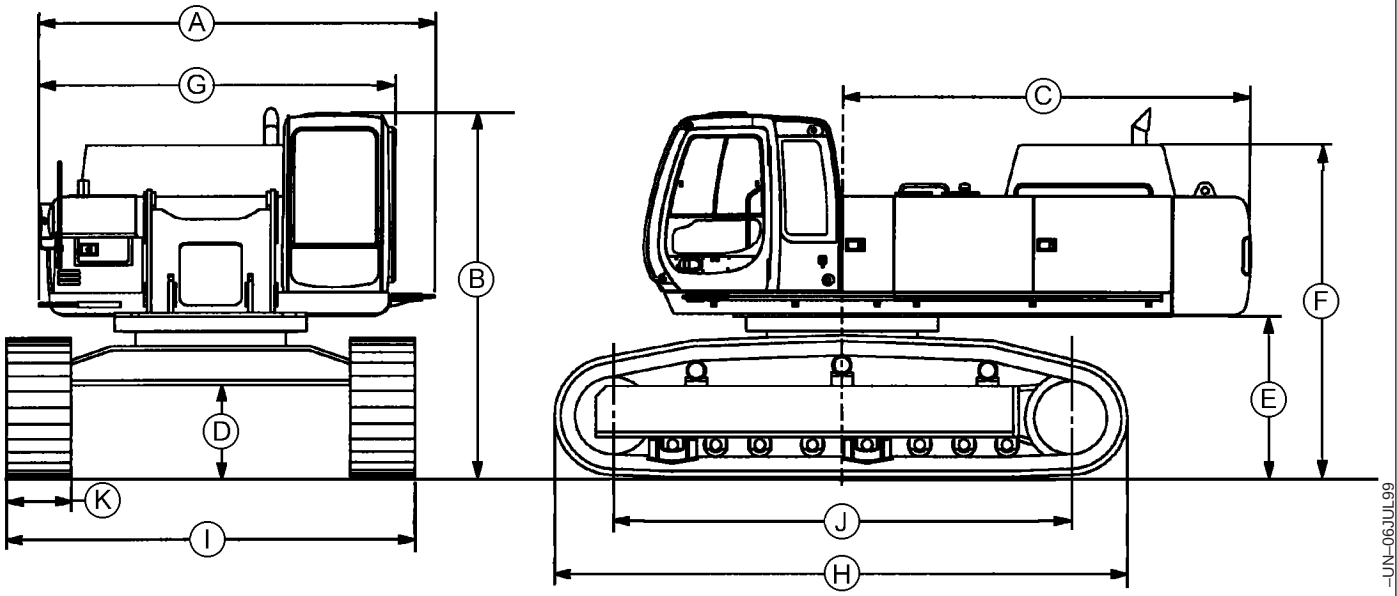


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550LC Excavator



T122108

T122108 –UN–06JUL99

A—Overall Width
B—Cab Height
C—Rear End Swing Radius
D—Minimum Ground Clearance
E—Counterweight Clearance
F—Engine Cover Height
G—Overall Width of Upperstructure
H—Undercarriage Length
I—Undercarriage Width
J—Sprocket Center to Idler Center
K—Track Shoe Width

NOTE: Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with PCSA and SAE standards. Except where otherwise noted these specifications are based on a machine equipped with 600 mm (23 in.) shoes, 3.5 m (11 ft 6 in.) arm, 2.72 m³ (3.56 yd³) bucket, full fuel tank, 79 kg (175 lb) operator and standard equipment.

Item	Measurement	Specification
A—Machine (excluding side mirrors)	Overall Width	3990 mm (13 ft 1 in.)
B—Cab	Height	3380 mm (11 ft 1 in.)
C—Rear End Swing	Radius	3800 mm (12 ft 5 in.)
D—Ground (Minimum)[1]	Clearance	810 mm (2 ft 7 in.)
E—Counterweight[1]	Clearance	1450 mm (4 ft 9 in.)

[1]Dimensions do not include height of shoe lug.

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Drain and Refill Capacities

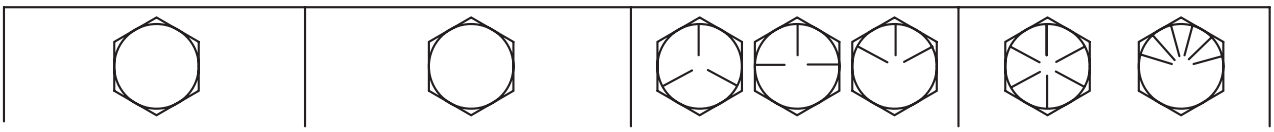
Item	Measurement	Specification
Fuel Tank	Capacity	700 L (185 gal)
Cooling System	Capacity	66.2 L (17.5 gal)
Engine	Oil Capacity, Including Filter Change	44.0 L (11.5 gal)
Hydraulic Tank	Oil Capacity	254 L (67 gal)
Swing Gearbox (Each)	Oil Capacity	8.0 L (2.1 gal)
Propel Gearbox (Each)	Oil Capacity	13.0 L (3.4 gal)
Pump Drive Gearbox	Oil Capacity	5.0 L (1.4 gal)

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Unified Inch Bolt and Screw Torque Values

TS1671 –UN–01MAY03



Bolt or	SAE Grade 1				SAE Grade 2[a]				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
Screw	Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]	
Size	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in
1/4	3.7	33	4.7	42	6	53	7.5	66	9.5	84	12	106	13.5	120	17	150
													N•m	lb-ft	N•m	lb-ft
5/16	7.7	68	9.8	86	12	106	15.5	137	19.5	172	25	221	28	20.5	35	26
									N•m	lb-ft	N•m	lb-ft				
3/8	13.5	120	17.5	155	22	194	27	240	35	26	44	32.5	49	36	63	46
			N•m	lb-ft	N•m	lb-ft	N•m	lb-ft								
7/16	22	194	28	20.5	35	26	44	32.5	56	41	70	52	80	59	100	74
	N•m	lb-ft														
1/2	34	25	42	31	53	39	67	49	85	63	110	80	120	88	155	115
9/16	48	35.5	60	45	76	56	95	70	125	92	155	115	175	130	220	165
5/8	67	49	85	63	105	77	135	100	170	125	215	160	240	175	305	225
3/4	120	88	150	110	190	140	240	175	300	220	380	280	425	315	540	400
7/8	190	140	240	175	190	140	240	175	490	360	615	455	690	510	870	640
1	285	210	360	265	285	210	360	265	730	540	920	680	1030	760	1300	960
1-1/8	400	300	510	375	400	300	510	375	910	670	1150	850	1450	1075	1850	1350
1-1/4	570	420	725	535	570	420	725	535	1280	945	1630	1200	2050	1500	2600	1920
1-3/8	750	550	950	700	750	550	950	700	1700	1250	2140	1580	2700	2000	3400	2500
1-1/2	990	730	1250	930	990	730	1250	930	2250	1650	2850	2100	3600	2650	4550	3350

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For plastic insert or crimped steel type lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application. Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Replace fasteners with the same or higher grade. If higher grade fasteners are used, tighten these to the strength of the original. Make sure fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

[a]Grade 2 applies for hex cap screws (not hex bolts) up to 6. in (152 mm) long. Grade 1 applies for hex cap screws over 6 in. (152 mm) long, and for all other types of bolts and screws of any length.

[b]"Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or 7/8 in. and larger fasteners with JDM F13C zinc flake coating.

[c]"Dry" means plain or zinc plated without any lubrication, or 1/4 to 3/4 in. fasteners with JDM F13B zinc flake coating.

DX,TORQ1 –19–24APR03–1/1

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Installing Boom Cylinder

SPECIFICATIONS	
Boom Cylinder	
Boom Cylinder Weight	515 kg (1135 lb) approximate
Head End Pin Weight	38 kg (83 lb) approximate
Pin Lock Plate Cap Screw Torque	390 N•m (288 lb-ft)

IMPORTANT: Take care not to mix up the right and left cylinders. Install the cylinder with the cylinder tubes facing toward each other.

1. Apply a film of grease to pin (B).

2. Lift up left side boom cylinder (C) with a crane.

Boom Cylinder—Specification
Boom Cylinder—Weight ..... 515 kg (1135 lb) approximate

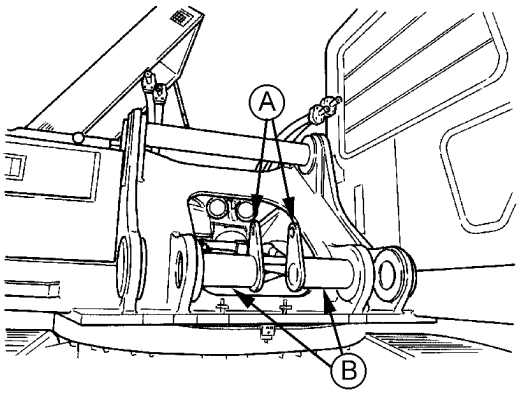
CAUTION: When aligning the centers of the pin and pin hole, DO NOT put fingers into the pin hole.

When using a hammer, wear safety equipment such as safety glasses or a hard hat to protect against injury from flying pieces of metal.

When inserting the pin, DO NOT enter the area under the boom cylinder.

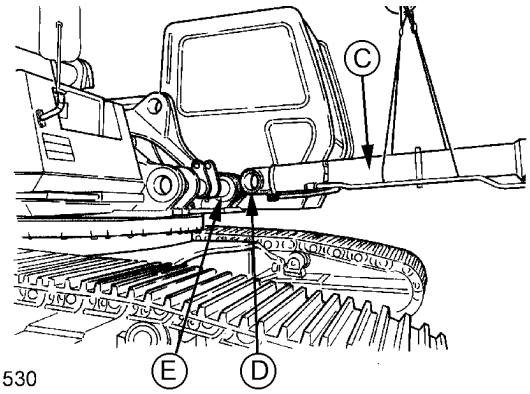
3. Align pin hole (D) on the bottom side of the boom cylinder with pin hole (E) on the main frame to install pin. Take care not to damage the seal at this time.

Boom Cylinder—Specification
Head End Pin—Weight ..... 38 kg (83 lb) approximate



T122529

T122529 –UN–05AUG99



T122530

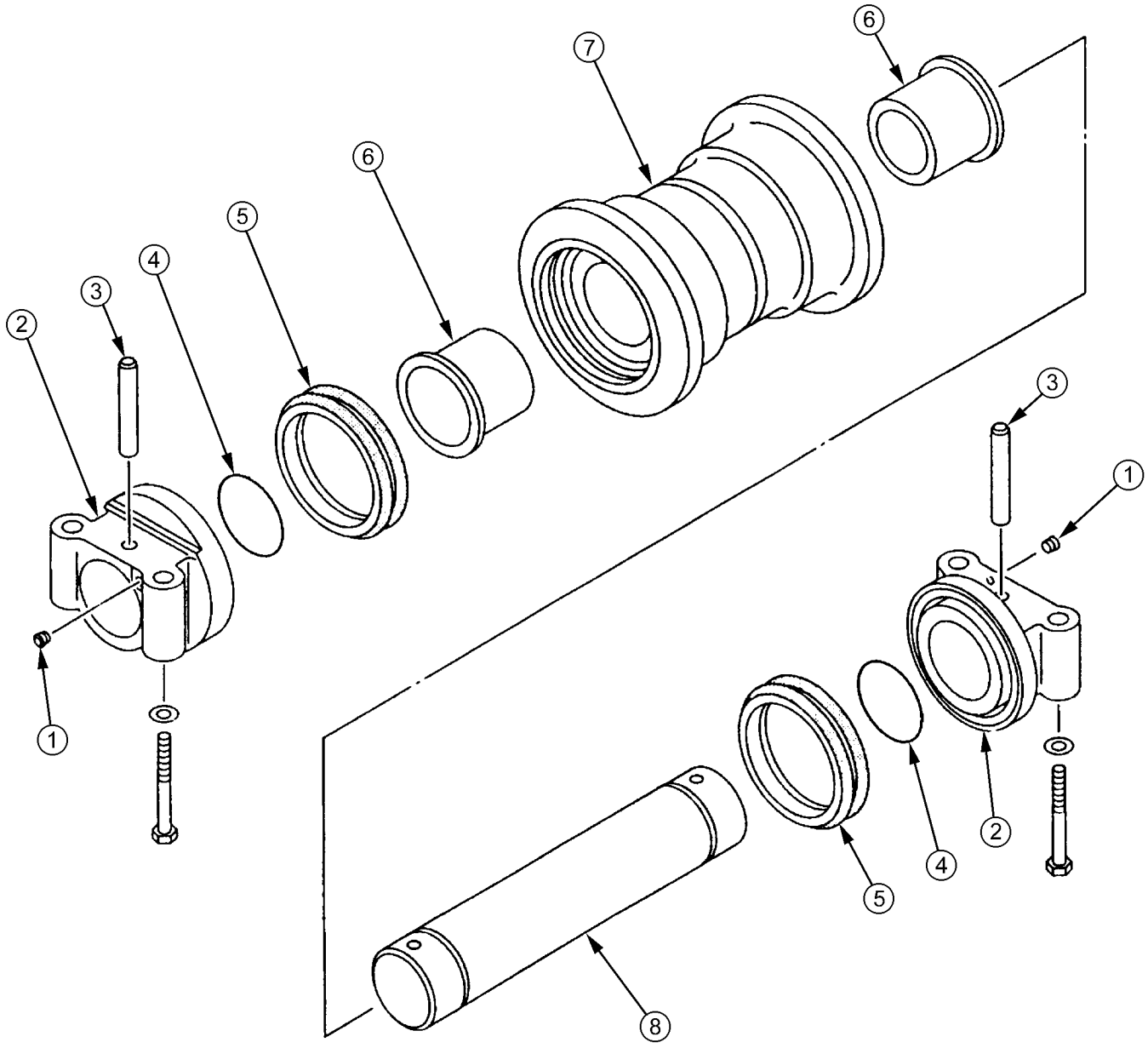
T122530 –UN–05AUG99

A—Pin Lock Plate
B—Pin
C—Left Side Boom Cylinder
D—Pin Hole
E—Pin Hole

Continued on next page

CED,TX14740,6802 –19–05JAN01–1/6

Disassemble and Assemble Lower Track Roller



1—Plug (2 used)
2—Bracket (2 used)
3—Pin (2 used)
4—O-Ring (2 used)
5—Metal Face Seals with O-Rings (2 used)
6—Bushing (2 used)
7—Roller
8—Shaft

Disassemble Lower Track Roller

1. Remove plugs (1) to drain oil.
2. Remove pins (3).

Continued on next page

Air Conditioner Self-Diagnostic Procedure

NOTE: Air Conditioner Controller has a self diagnostic feature which can indicate problems with sensor circuits in the air conditioning system. Follow the below procedure to troubleshoot system using the controller.

1. Turn key switch ON and check if blower motor is OFF.

   If motor runs, press OFF button (I) on controller.

2. Turn key switch OFF.

3. Turn key switch ON while pressing the OFF button (I) on the controller. Hold OFF button down until diagnostic code is shown on indicator lights (K).

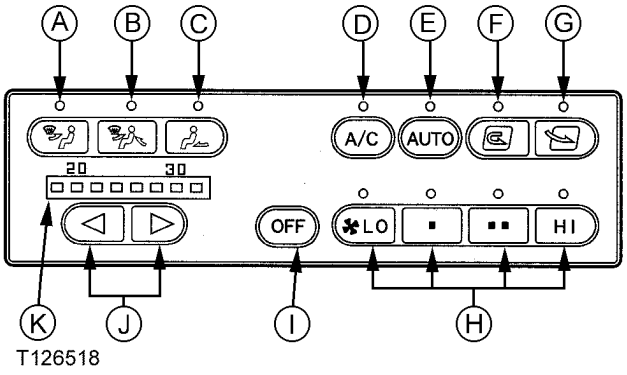
4. Repair wiring or replace sensor as necessary according to conditions given on chart.

NOTE: Previous diagnostic history is stored in the controller until it is reset.

5. To reset controller, turn key switch OFF.

   Turn key switch ON and press the A/C button (D).

6. Repeat procedure to confirm that system has been repaired (all indicator lights (K) blink green).



T126518 –UN–06DEC99

Indicator (K)	Condition of Sensor
20 30 Blinks Green	Normal
20 30 Binks Red	Break or Short in Cab Air Temperature Sensor Circuit
20 30 Binks Red	Break or Short in Ambient Air Temperature Sensor Circuit
20 30 Binks Red	Break or Short in Refrigerant Temperature Sensor Circuit
20 30 Binks Red	Break or Short in A/C and Heater Thermistor

T126522 –19–20DEC99

A/C Controller Indicator Display for System Malfunctions Chart

A—Defrost Vent Selection Button
B—Defrost and Behind Seat Vents Selection Button
C—Floor Vent Selection Button
D—Air Condition Button
E—Auto Temperature Control Button
F—Recirculation Button
G—Fresh Air Button
H—Blower Speed Selection Buttons
I—Blower Motor Off Button
J—Temperature Control Buttons
K—Indicator Lights

CED,TX17994,200 –19–06DEC99–1/1

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Measure And Adjust Injector And Engine Valve Clearances

NOTE: Valve and injectors must be correctly adjusted for the engine to operate efficiently. Valve and injector adjustment must be performed using the values listed in this section.

Adjust the valves and the injectors at each 1500 hours or one year interval (whichever comes first). Also, check adjustment after any major repair.

IMPORTANT: All overhead (valve and injector) adjustments must be made when the engine is cold (any stabilized coolant temperature at 60°C [140°F] or below).

Adjustment

1. Disconnect the negative (-) cable from the battery before working on the engine.

2. Clean the head cover mounting area to avoid any foreign matter from getting into the engine system.

NOTE: The valve set marks are located on the accessory drive pulley. The marks align with the pointer on the gear cover.

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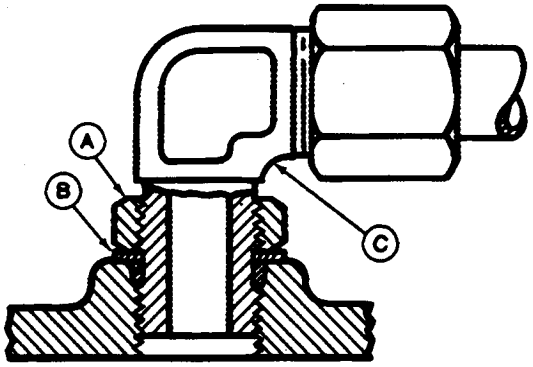
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Angle Fitting

1. Back-off lock nut (A) and back-up washer (B) completely to head-end (C) of fitting.
2. Turn fitting into threaded boss until back-up washer contacts face of boss.
3. Turn fitting head-end counterclockwise to proper index (maximum of one turn).

NOTE: Do not allow hoses to twist when tightening fittings.

4. Hold fitting head-end with a wrench and tighten locknut and back-up washer to proper torque value.



T6520AB –UN–18OCT88

STRAIGHT FITTING OR SPECIAL NUT TORQUE CHART		
Thread Size	**N•m**	**lb-ft**
3/8-24 UNF	8	6
7/16-20 UNF	12	9
1/2-20 UNF	16	12
9/16-18 UNF	24	18
3/4-16 UNF	46	34
7/8-14 UNF	62	46
1-1/16-12 UN	102	75
1-3/16-12 UN	122	90
1-5/16-12 UN	142	105
1-5/8-12 UN	190	140
1-7/8-12 UN	217	160
NOTE: Torque tolerance is ± 10%.		

04T,90,K66 –19–29SEP99–2/2

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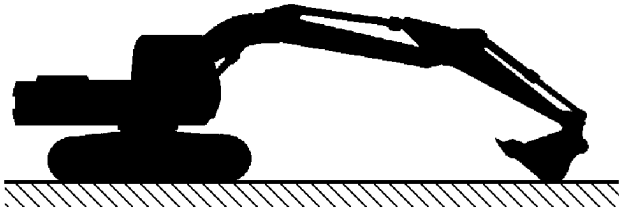
Check Hydraulic Oil Level

IMPORTANT: Prevent damage to hydraulic system components. DO NOT run engine without oil in hydraulic tank.

1. Park machine on a level surface.
2. Position the machine with the arm cylinder fully retracted and the bucket cylinder fully extended.
3. Lower bucket to the ground.
4. Turn auto-idle switch off.

IMPORTANT: Turbocharger may be damaged if engine is not properly shut down.

5. Run engine with engine rpm dial at slow idle speed without load for 3 minutes.
6. Turn key switch to OFF. Remove key from switch.
7. Pull pilot control shut-off lever to locked position.



T122940 –UN–30JUL99

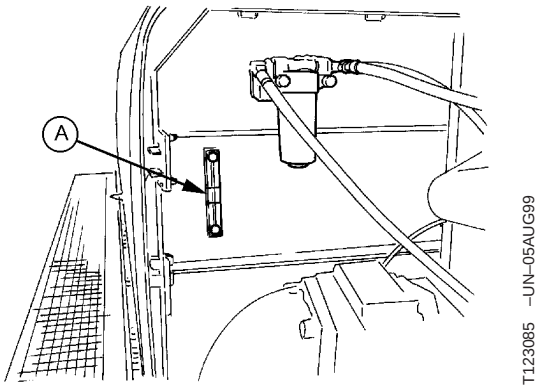
T122940

CED,TX14740,6609 –19–29JUL99–1/5

8. Check oil level gauge (A) on hydraulic tank. Oil must be between marks on gauge.

   If necessary, add oil. (See Fuels and Lubricants chapter.)

A—Hydraulic Oil Level Gauge



T123085 –UN–05AUG99

T123085

Continued on next page

CED,TX14740,6609 –19–29JUL99–2/5

CAUTION: High pressure grease in track adjuster cylinder. Do not remove grease fitting (B) or nut and valve assembly to release grease.

IMPORTANT: Prevent possible damage to track components. Do not use the grease fitting on track adjuster cylinder for lubrication. Use this grease fitting only for track sag adjustment.

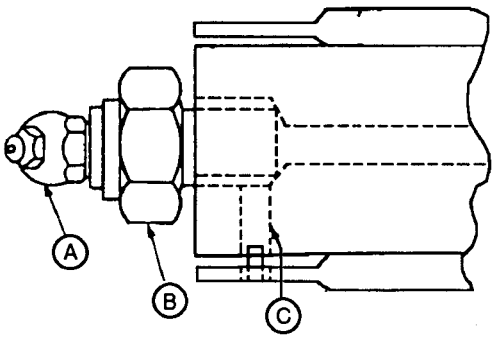
5. To decrease track sag, add multi-purpose grease to track adjuster cylinder through relief valve grease fitting (A) using a grease gun with a maximum capacity of 68 950 kPa (690 bar) (10,000 psi).

   To increase track sag, loosen nut (B) just enough to release grease from track adjuster cylinder through hole (C). Tighten valve when track sag is correct.

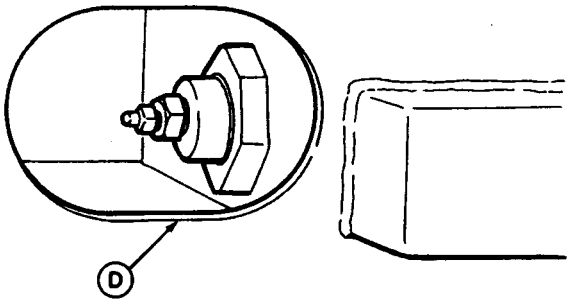
Track Chain—Specification

Nut and Valve Assembly—Torque	147 N•m (108 lb-ft)

NOTE: If track sag does not change using this procedure, dissemble and inspect track adjuster cylinder. (See procedure in Group 0130.)



T7396DZ –UN–28NOV90



T8171AC –UN–06FEB94

A—Grease Fitting
B—Nut
C—Bleed Hole
D—Access Hole

OUOE003,0000073 –19–02DEC00–3/3

1—Propel Motor
2—Housing
3—Floating Seal
4—Roller Bearing (2 used)
5—Drum
6—Sprocket
7—Spring Washer (24 used)
8—Cap Screw (24 used)
9—Bearing Nut
10—Lock Plate
11—Cap Screw (2 used)
12—Third Stage Planet Carrier
13—Third Stage Planet Gear (4 used)
14—Needle Bearing (8 used)
15—Thrust Plate (8 used)
16—Pin (4 used)
17—Spring Pin (4 used)
18—Third Stage Sun Gear
19—Ring Gear
21—Knock Pin (8 used)
22—Second Stage Planet Carrier
23—Spacer
24—Second Stage Planet Gear (3 used)
25—Needle Bearing (3 used)
26—Thrust Plate (6 used)
27—Pin (3 used)
28—Spring Pin (3 used)
29—Second Stage Sun Gear
30—Spacer
31—First Stage Planet Carrier
32—Stopper Pin
33—First Stage Planet Gear (3 used)
34—Needle Bearing (3 used)
35—Thrust Plate (6 used)
36—Pin (3 used)
37—Spring Pin (3 used)
38—Propeller Shaft
39—Cover
40—Spring Washer (4 used)
41—Cap Screw (20 used)
42—Plug (3 used)
45—Bolt (4 used)
46—Spring Washer (4 used)
47—O-Ring
49—Bearing

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0250
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1. Install one half of floating seal (3) on housing (2).

2. Install outer race of roller bearing (4) in motor side of drum (5).

CAUTION: The approximate weight of drum is 185 kg (410 lb).

Approximate weight of sprocket is 115 kg (255 lb).

Propel Gearbox—Specification

Drum—Weight	185 kg (410 lb) approximate
Sprocket—Weight	115 kg (255 lb) approximate

3. Turn drum (5) over and install outer race of roller bearing (4) in drum .

4. Install sprocket (6) to drum. Apply high strength thread lock and sealer to cap screws (8) and tighten.

Propel Gearbox—Specification

Sprocket Mounting Cap Screw—Torque	740 N•m (540 lb)

5. Install other half of floating seal (3) to drum. Install inner race of bearing (4) to housing (2).

6. Attach hoist to drum (5) using eyebolts. Install drum onto housing (2).

7. Press inner race of roller bearings (4) into ring gear side of housing.

Continued on next page

CED,TX17994,206 –19–15JAN01–2/11

Essential Tools

NOTE: Order tools according to information given in the U.S. SERVICEGARD™ Catalog or from the European Microfiche Tool Catalog (MTC).

SERVICEGARD is a trademark of Deere & Company.

CED,TX03679,5576 –19–09DEC99–1/3

4,000 lb. Load Positioning Sling D01043AA

To remove and install engine.

CED,TX03679,5576 –19–09DEC99–2/3

Lifting Sling JDG23

To remove and install engine.

CED,TX03679,5576 –19–09DEC99–3/3

Service Equipment and Tools

NOTE: Order tools according to information given in the U.S. SERVICEGARD™ Catalog or from the European Microfiche Tool Catalog (MTC). Some tools may be available from a local supplier.

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CED,TX03679,5577 –19–09DEC99–1/2

Metric Lifting Eyebolt (3 used) JT05550 (M12-1.75)

Used to remove hydraulic pumps and hydraulic pump drive gearbox.

CED,TX03679,5577 –19–09DEC99–2/2

Charging Battery

CAUTION: Always remove grounded (-) battery clamp first and replace it last.

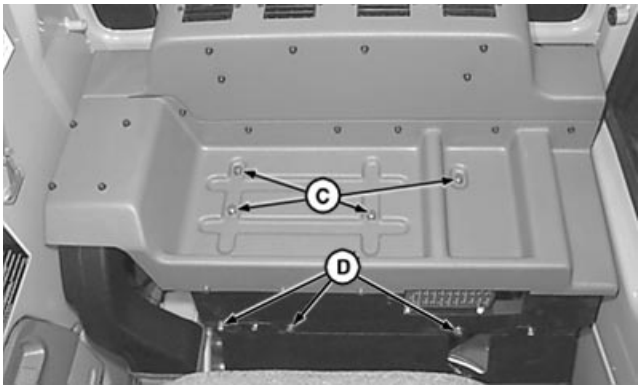
IMPORTANT: When charging a battery in the machine, battery cables and PVC and EC controller connectors must be disconnected to avoid damage to electrical components and controllers if battery charger cables are inadvertently connected to battery wrong.

NOTE: Follow manufacturer's instructions to use battery charger as a booster to start engine.

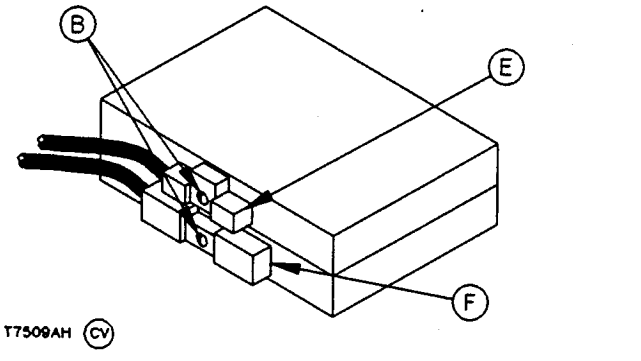
1. Disconnect all battery cables starting at the negative (-) ground cable.

TX,16,DY2745 –19–07JAN01–1/3

2. Remove four cap screws (C) and three cap screws (D) to remove the rear console cover.
3. Loosen cap screws (B) and disconnect EC connector (E) and PVC connector (F).
4. Turn charger off before connecting or disconnecting it.
5. Charge battery following manufacturer's instructions for your battery charger.
6. After battery is charged, connect the battery positive (+) cable, then connect the negative (-) ground cable.



T107411 –UN–06MAR97



T7509AH –UN–05SEP91

B—Controller Connector Cap Screw
C—Console Cap Screw
D—Console Cap Screw
E—Engine Controller (EC) Connector
F—Pump and Valve Controller (PVC) Connector

Continued on next page

TX,16,DY2745 –19–07JAN01–2/3

13. Add shims (E) as required.

NOTE: It may be necessary to replace lock strap (G) if damaged.

14. Install boss plate (C), lock strap (G) and cap screws (F).

15. Tighten cap screws (F) to specification.

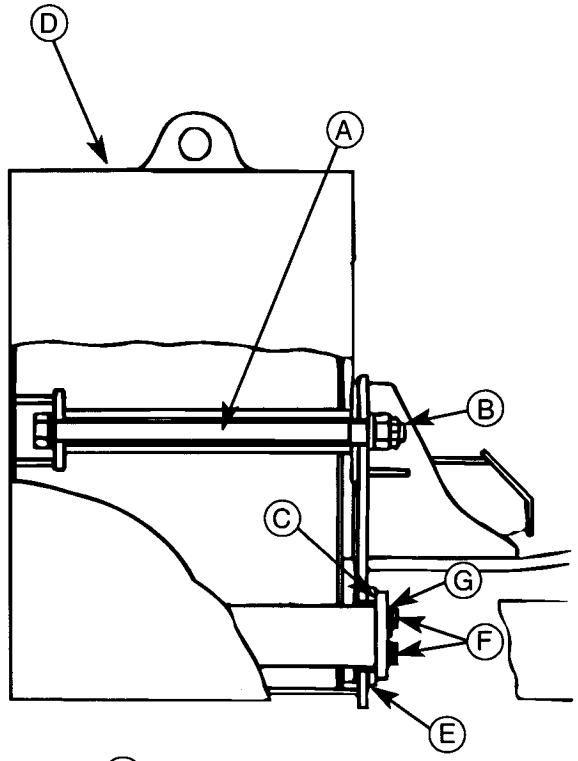
Counterweight—Specification

Boss Plate-to-Frame Cap Screw—Torque	390—488 N•m (288—360 lb-ft)

16. Bend one top and one bottom corner of the lock strap against the head of each cap screw (F).

17. Install bottom covers.

A—Tie Bolt (2 used)
B—Slotted Nut (2 used)
C—Boss Plate (2 used)
D—Counterweight
E—Shim (As Required)
F—Cap Screw (2 used)
G—Lock Strap (2 used)



T8172AD CV

T8172AD –UN–20FEB94

CED,TX17994,110 –19–16JAN01–4/4

17
1749
4

10. Evacuate system for 30 minutes after 98 kPa (980 mbar) (29 in. Hg) vacuum is reached.

Specification	
Evacuate System—Time	For 30 min. After 98 kPa (980 mbar) (29 in. Hg) Vacuum

11. Close low-side and high-side valves. Stop evacuation.

12. Charge the system. (See procedure in this group.)

CED,TX14795,4341 –19–04OCT00–3/3

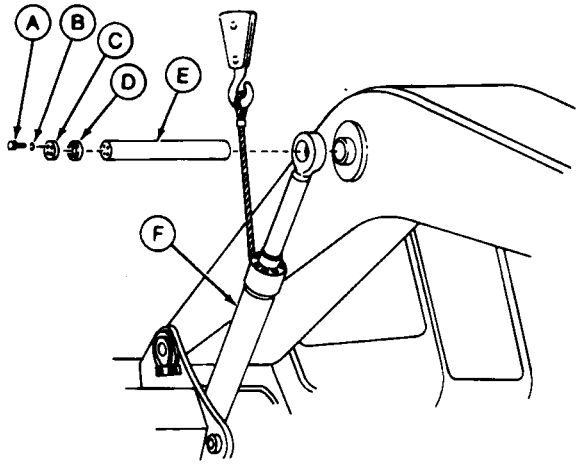
P

18. Raise boom cylinder (F) into position on boom.
19. Install pin (E), washer (D), stop (C), and washers (B).
20. Install cap screws (A) and tighten.

Boom—Specification

Boom Pin-to-Cylinder Cap Screw—Torque	540 N•m (400 lb-ft)

21. Repeat procedure for other boom cylinder.
22. Install arm cylinder if removed. (See procedure in Group 3360.)
23. Connect wiring harness.
24. Connect hydraulic lines.
25. Connect lubrication lines at rod end of cylinders.
26. Install arm. (See procedure in this group.) Install bucket and linkage.
27. Lubricate pivot joints. (See Grease, Group 0004.)
28. Check oil level. Add oil if necessary.



T7029JB –UN–07JUN89

A—Cap Screw (14 used)
B—Washer (14 used)
C—Washer (3 used)
D—Lock Washer (3 used)
E—Pin
F—Boom Cylinder (2 used)

CED,TX03679,5556 –19–17JAN01–8/8

Pump Angle Sensor—Specification
Pump Displacement—Flow Rate ..... 243—246 cc/rev

7. Loosen cap screws (D) on A sensor requiring adjustment using 5 mm hex wrench.

8. Turn A sensor counterclockwise to increase pump displacement reading.

9. Tighten angle sensor cap screws (D).

Pump Angle Sensor—Specification
Angle Sensor Cap Screw—
Torque ..... 13 N•m (110 lb-in.)

10. Observe computer screen to ensure A sensor did not move when cap screws were tightened.

11. Adjust other A sensor if needed, by following Steps 7, 8, 9, and 10.

12. Close monitor data window and select **Adjust** icon from tool bar.

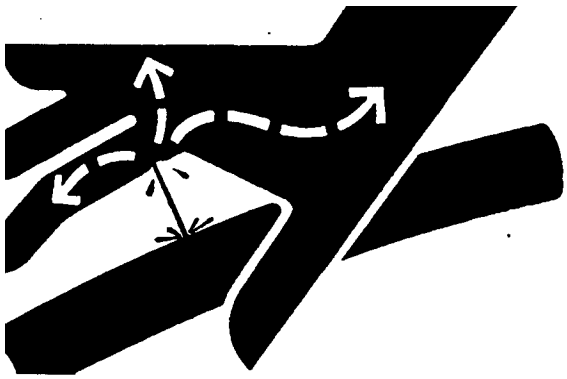
13. Return hydraulic pump to minimum displacement by selecting YES and then NO. Pump displacement goes to minimum and engine speed increases to slow idle.

33
3360
41

OUOE003,0000077 –19–03DEC00–2/2

Remove and Install Hydraulic Pump Pressure Sensor

CAUTION: High pressure release of oil from pressurized system can cause serious burns or penetrating injury. The hydraulic oil tank is pressurized. Do not remove vent plug. Release pressure by loosening vent plug.



X9811 –UN–23AUG88

1. Slowly loosen vent plug on hydraulic oil tank cover to relieve pressure. Do not remove vent plug. Unlock and remove filler cap.

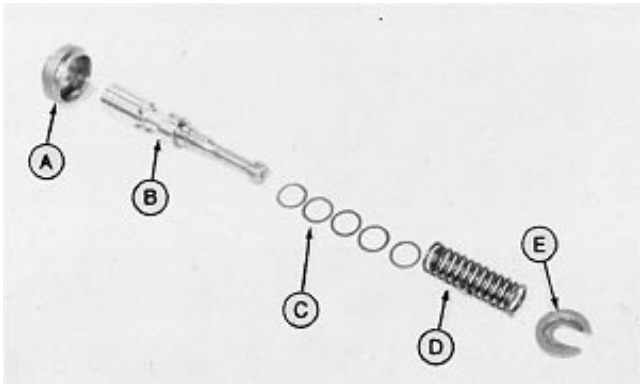
2. Place a vacuum on hydraulic reservoir.

Continued on next page

OUOE003,0000149 –19–17JAN01–1/2

10. Remove spring guide (A).
11. Remove retainer (E) to remove spring (D) and shims (C) from spool (B).
12. Assemble parts (A—E). Recessed side of retainer (E) must be towards spring (D).
13. Apply clean hydraulic oil to all internal parts.

A—Spring Guide
B—Spool
C—Shim (5 used)
D—Spring
E—Retainer



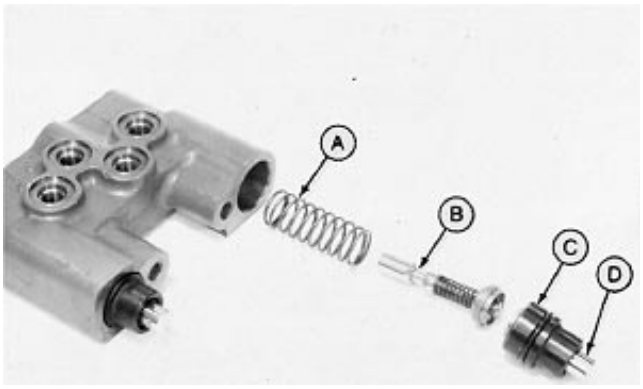
T6985DJ –UN–30MAR89

TX,1749,DV2861 –19–05JAN01–6/10

33
3360
86

14. Install parts (A—D) in same bores from which they were removed.

A—Spring (2 used)
B—Spool Assembly (2 used)
C—Bushing (2 used)
D—Pusher (2 used)



T6985DG –UN–30MAR89

Continued on next page

TX,1749,DV2861 –19–05JAN01–7/10

3. Disconnect lines (A and B).

CAUTION: Approximate weight of counterweight cylinder is 82 kg (180 lb).

Counterweight Cylinder—Specification

Counterweight Cylinder—
Approximate Weight ..... 82 kg (180 lb)

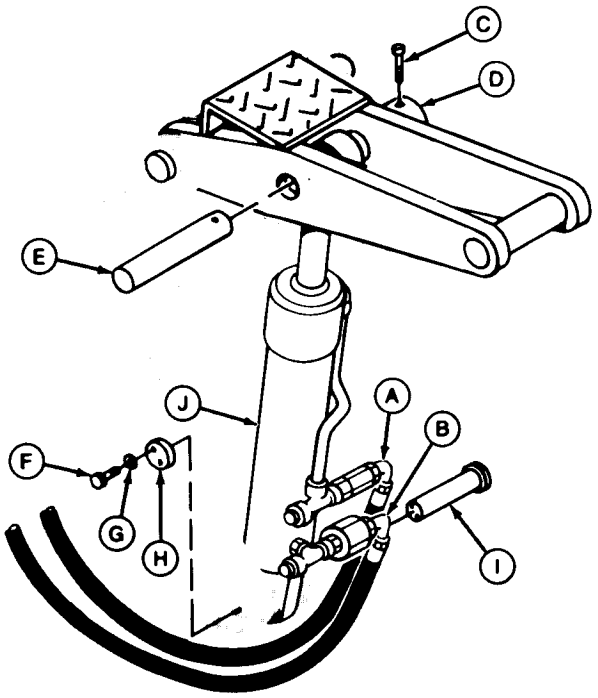
33
3360
,130

4. Attach hoist to cylinder. Remove cap screws (F), washers (G), and retainer (H).
5. Remove pin (I).
6. Remove cap screw (C) and boss (D) (if not welded to link assembly). Remove pin (E).
7. Replace parts as necessary.
8. Install cylinder rod end to counterweight link.
9. Install pin (E), boss (D) and cap screw (C).
10. Install pin (I), retainer (H), washers (G), and cap screws (F).
11. Connect lines (A and B).

IMPORTANT: Engine must be run at slow idle to avoid fast hydraulic response when operating counterweight lifting device.

Link assemblies must not touch counterweight while cycling counterweight cylinder.

12. Start engine. Operate function a minimum of six cycles with no load to remove air from circuit.
13. Attach link assembly to counterweight connecting links.



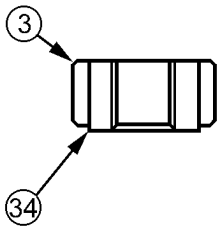
T7138AB –UN–15SEP89

A—Cylinder Rod End Port-to-Manifold Left Port Line
B—Cylinder Head End Port-to-Check Valve Left Front Port Line
C—Cap Screw
D—Boss
E—Pin
F—Cap Screw (2 used)
G—Washer (2 used)
H—Retainer
I—Pin

CED,TX17994,112 –19–06OCT99–3/3

IMPORTANT: Install first stage sun gear (3) with the stepped end (34) facing downward.

21. Install first stage sun gear (3).



T126515

T126515 –UN–07DEC99

3—First Stage Sun Gear
34—Stepped End of Gear

CAUTION: The approximate weight of swing motor is 50 kg (110 lb).

Swing Gearbox—Specification

Swing Motor—Approximate Weight	50 kg (110 lb)

22. Install swing motor (2) with marks aligned and install capscrews (1). Tighten capscrews to specification.

43
4350
22

Swing Gearbox—Specification

Swing Motor Cap Screw—Torque	88 N•m (65 lb-ft)

23. Fill gearbox with oil. Approximate capacity is 13.2 L (3.5 gal). (See Swing Gearbox, Propel Gearbox and Pump Gearbox Oils in Group 0004.)

CED,TX17864,1164 –19–06DEC99–8/8

Remove Upperstructure

1. Remove counterweight. (See procedure in Group 1749.)
2. Remove bucket, arm, and boom.(See procedure in Group 3340.)
3. Clean the machine thoroughly.
4. Disconnect battery negative cables.

Continued on next page

CED,TX17864,1171 –19–13DEC99–1/5

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