Handle Fluids Safely—Avoid Fires

When you work around fuel, do not smoke or work near heaters or other fire hazards.

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.

TS227 –UN–23AUG88

DX,FLAME –19–04JUN90–1/1

Prevent Battery Explosions

Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode.

Never check battery charge by placing a metal object across the posts. Use a volt-meter or hydrometer.

Do not charge a frozen battery; it may explode. Warm battery to 16°C (60°F).

Specification

Battery—Warm	16°C (60°F)

TS204 –UN–23AUG88

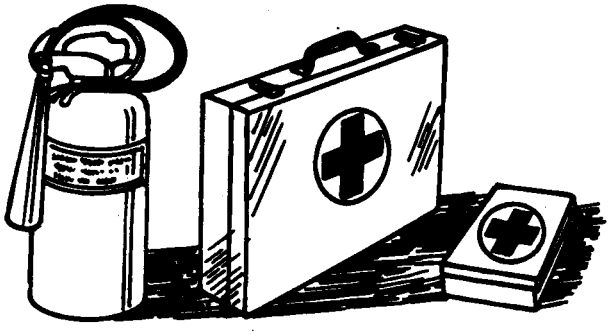
DX,SPARKS –19–03MAR93–1/1

Prepare for Emergencies

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

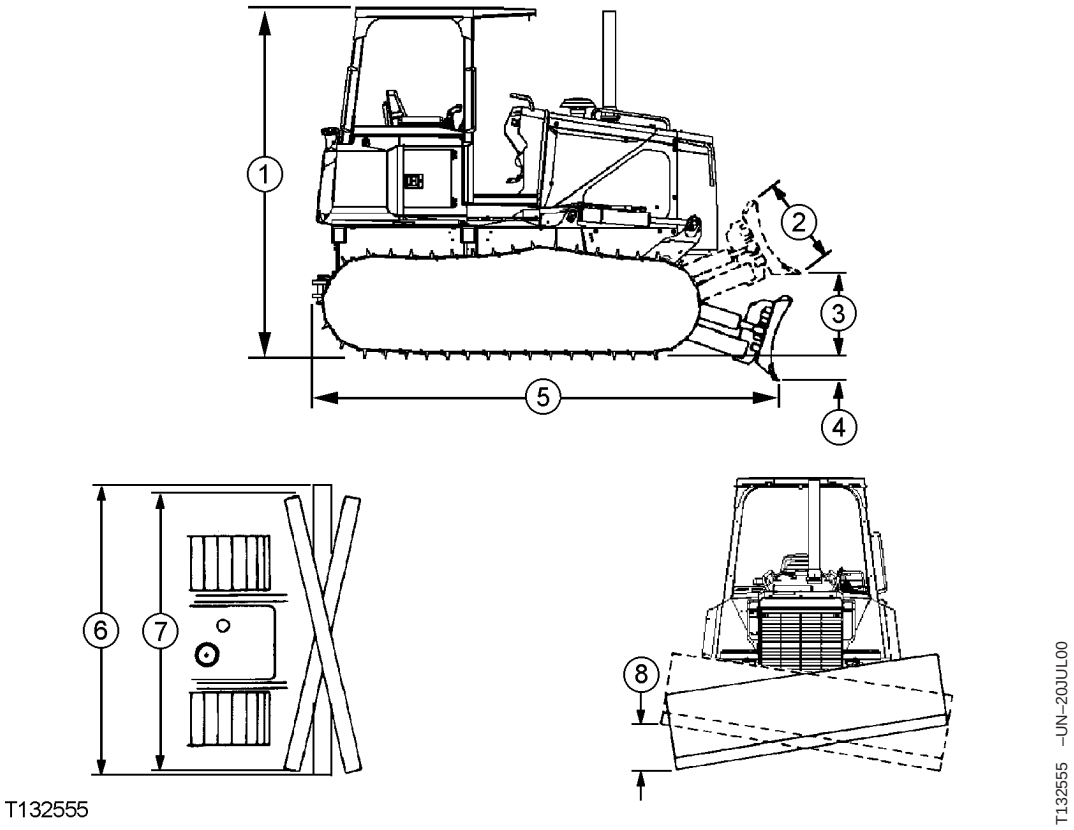
Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



TS291 –UN–23AUG88

DX,FIRE2 –19–03MAR93–1/1

700H Crawler Dozer Dimensions



T132555

NOTE: Specifications and design subject to change without notice. Whenever applicable, specifications are in accordance with ICED and SAE standards. Except where otherwise noted, these specifications are based on a unit with roll-over protective structure, full fuel tank, 80 kg (175 lb) operator, and standard equipment.

Item	Measurement	Specification
1—Overall Height—ROPS or Cab	Height	2986 mm (9 ft 10 in.)
2—(120 in. Standard Blade)	Height	933 mm (3 ft 0.7 in.)
3—Blade Lift LT	Height	910 mm (35.8 in.)
—Blade Lift LGP	Height	980 mm (38.6 in.)
4—Digging LT	Depth	500 mm (19.7 in.)
—Digging LGP	Depth	540 mm (21.3 in.)
5—Overall (Without Winch) LT	Length	4508 mm (14 ft 9.5 in.)
6—Blade Width (LT Blade)	Width	3048 mm (120 in.)

Continued on next page

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Diesel Fuel Storage

Proper fuel storage is critically important. Use clean storage and transfer tanks. Periodically drain water and sediment from bottom of tank. Store fuel in a convenient place away from buildings.

IMPORTANT: DO NOT store diesel fuel in galvanized containers. Diesel fuel stored in galvanized containers reacts with zinc coating on container to form zinc flakes. If fuel contains water, a zinc gel will also form. The gel and flakes will quickly plug fuel filters, damage injection nozzles and injection pump.

DO NOT use brass-coated containers for fuel storage. Brass is an alloy of copper and zinc.

Store diesel fuel in plastic, aluminum, and steel containers specially coated for diesel fuel storage.

Avoid storing fuel over long periods of time. If fuel is stored for more than a month prior to use, or there is a slow turnover in fuel tank or supply tank, add a fuel conditioner such as John Deere PREMIUM DIESEL FUEL CONDITIONER or equivalent to stabilize the fuel and prevent water condensation. John Deere PREMIUM DIESEL FUEL CONDITIONER is available in winter and summer formulas. Fuel conditioner also reduces fuel gelling and controls wax separation during cold weather.

Consult your John Deere engine distributor or servicing dealer for recommendations and local availability. Always follow manufacturer's directions on label.

TX,45,JC1772 –19–08JAN97–1/1

Fuel Tank

CAUTION: Handle fuel carefully. If the engine is hot or running, do not fill the fuel tank. Do not smoke while you fill fuel tank or work on fuel system.

To avoid condensation, fill the fuel tank at the end of each day's operation.

Specification

Fuel Tank—Capacity	227 L (60 gal)

TS185 –UN–23AUG88

CED,TX03768,2786 –19–13JUN00–1/1

NOTE: Metal face seals are matched sets. Seals are not interchangeable with other seals.

6. Remove and inspect metal face seals. (See Inspect Metal Face Seals in this group.)

7. Remove O-rings (2) from both ends of shaft.

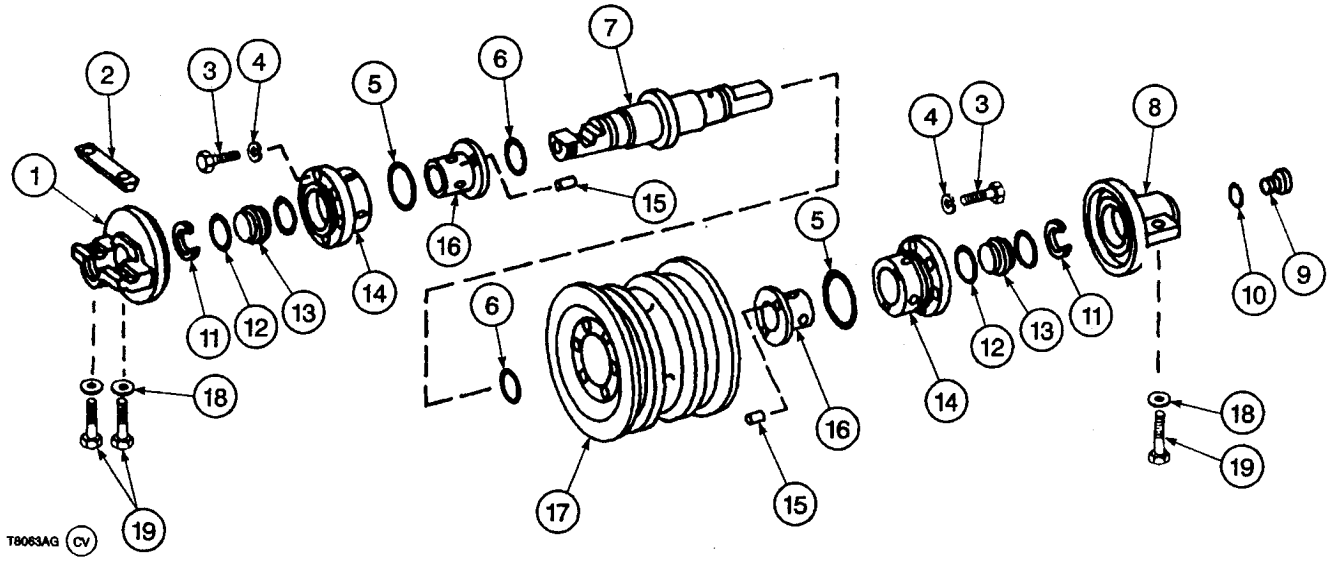
NOTE: Shaft, bushings and bushing case are not service, replace with roller assembly.

8. Inspect shaft, bushings and bushing case, replace with roller assembly.

T6018BC –UN–26OCT88

1—Cap Screw (12 used)
2—O-Rings

CED,TX03399,5943 –19–24MAR00–4/12



T8063AG –UN–08SEP93

Double Flange Track Roller Shown

1—Inner Collar
2—Lock
3—Cap Screw (12 used)
4—Lock Washer (12 used)
5—O-Ring (2 used)
6—O-Ring (2 used)
7—Shaft
8—Outer Collar
9—Plug
10—O-Ring
11—Snap Ring (2 used)
12—O-Ring (4 used)
13—Metal Face Seal (2 used)
14—Bushing Case (2 used)
15—Pin (2 used)
16—Bushing (2 used)
17—Roller
18—Washer (4 used)
19—Cap Screw (4 used)

9.

Assembly of single and double flange roller is the same. Single flange shown.

Continued on next page

CED,TX03399,5943 –19–24MAR00–5/12

21. Install a thrust ring on each side of pin.

22. Move completed link assembly to rear seat of saddle.

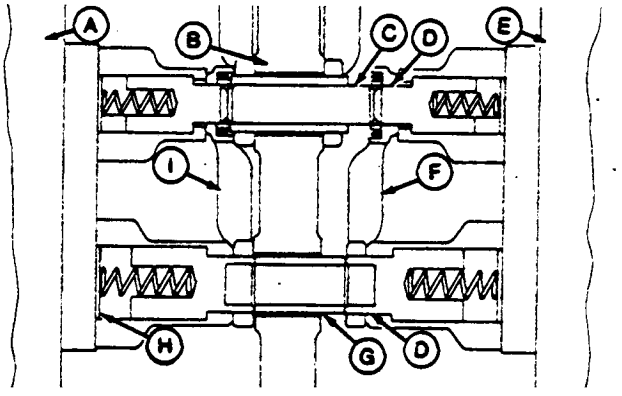
T96278 –UN–27OCT88

CED,TX03399,5954 –19–24MAR00–9/11

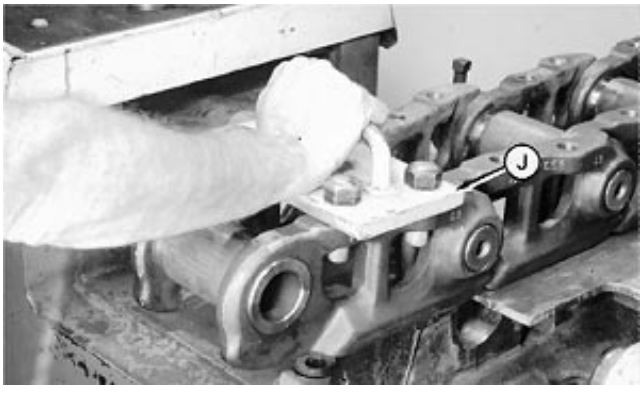
23. Install bushing (G) in front saddle seat. Install right and left links (E and I) on ram plungers (D).

24. Advance left ram (A) until left link contacts the saddle (B). Advance right ram until link is pressed together and bolts can be installed through 23058 Track Shoe Gauge (J).

A—Left Ram
B—Saddle
C—Pin
D—Plunger
E—Right Ram
F—Right Link
G—Bushing
H—Plunger Shims
I—Left Link
J—23058 Track Shoe Gauge



T96283 –UN–27OCT88



T96290 –UN–27OCT88

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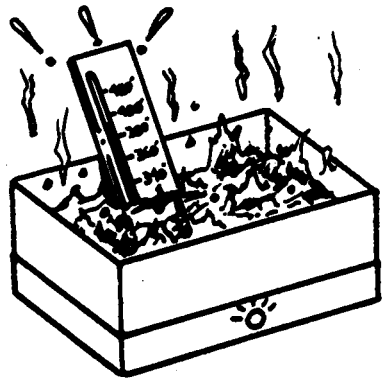
CED,TX03399,5954 –19–24MAR00–10/11

CAUTION: DO NOT heat oil over 182°C (360°F). Oil fumes or oil can ignite above 193°C (380°F). Use a thermometer. DO NOT allow flame or heater element to come in direct contact with the oil. Heat oil in a well ventilated area.



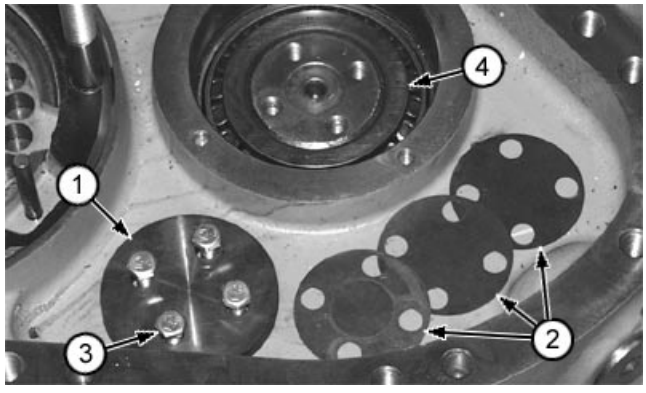
T81191 –UN–23FEB89

NOTE: Housing and axle shaft flange must be level, with weight of housing on axle flange.

50. Heat bearing (4) and install onto axle shaft.

51. Install shims (2) removed initially, and add an additional shims to provide an end play on axle shaft.

1—Retaining Plate
2—Shims
3—Cap Screw
4—Bearing



T133362B –UN–21AUG00

CED,TX03399,5970 –19–24MAR00–23/26

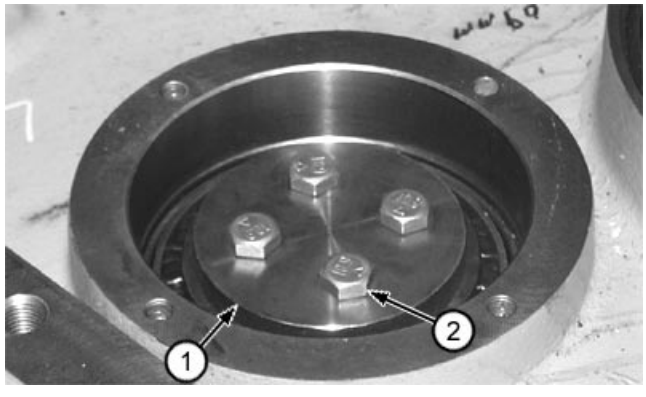
52. Tighten retaining plate cap screws to specification.

Final Drive—Specification

Axle Retainer Cap—Torque	319 N•m (235 lb-ft)

53. Lift final drive and rotate axle and tap on retaining cap with hammer and punch. Torque cap screws again to specification. Repeat this step until cap screws do not turn when tightened after tapping retainer plate.

1—Retaining Plate
2—Cap Screws



T133336B –UN–21AUG00

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CED,TX03399,5970 –19–24MAR00–24/26

37.

Install rod on detent plate, if removed. Tighten nut to specifications.

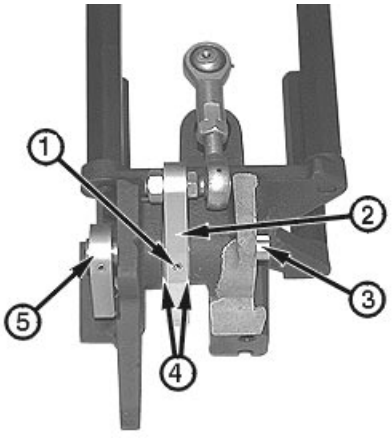
Single Lever Control—Specification

Detent Plate Rod Ball Joint Nut—
Torque ..... 19 N•m (14 lb-ft) (168 lb-in.)

38. Install cam (5) on detent shaft and install spring pin.

NOTE: When driving pin in detent plate, support assembly to prevent damage to bearings and seals.

39. While holding detent plate (2) and spacers (4) in place, install detent shaft (3) as shown with spring pin holes for plate and cam in line. Install spring pin (1) in detent plate.



T119651B –UN–18JAN99

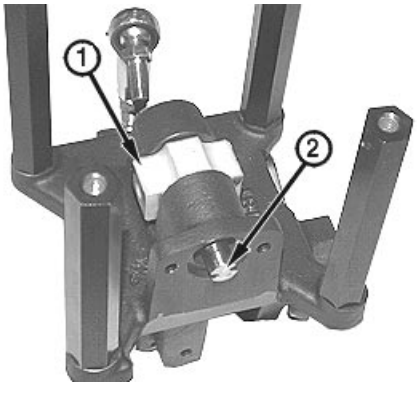
1—Spring Pin
2—Detent Plate
3—Detent Shaft
4—Spacers (2 used)
5—Cam

CED,TX03399,5977 –19–24MAR00–17/28

NOTE: Align pin bore in bearing block and sensor shaft.

40. Install bearing block (1) and steer sensor shaft (2).

1—Bearing Block
2—Steer Sensor Shaft



T119650B –UN–19JAN99

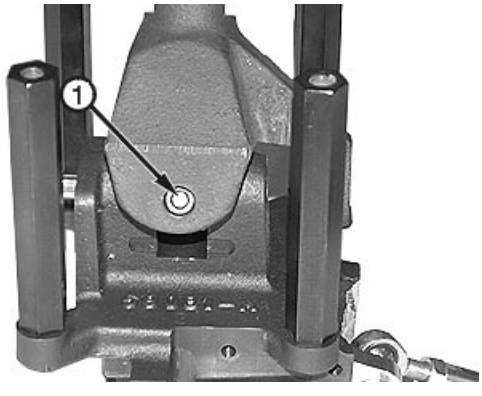
CED,TX03399,5977 –19–24MAR00–18/28

NOTE: Care should be taken to avoid damaging bearing block, bearings and seals.

41. Install lever assembly, and using a 1/4 in. punch with rounded edges, drive pivot pin (1) into bracket assembly. Pin should protrude equally on both ends.

42. Install seal plugs.

1—Pivot Pin



T119649B –UN–19JAN99

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CED,TX03399,5977 –19–24MAR00–19/28

PowerTech® 6.8L (6068) John Deere Engine—Use CTM104

For additional engine information, the component technical manual (CTM) is also required.

Use the CTM in conjunction with this machine manual.

M44215 –UN–07SEP88

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TX,05,SS3179 –19–13APR99–1/1

Remove and Install Engine

TS281 –UN–23AUG88

CAUTION: Explosive release of fluids from pressurized cooling system can cause serious burns.

Shut off engine. Only remove filler cap when cool enough to touch with bare hands. Slowly loosen cap to first stop to relieve pressure before removing completely.

1. Remove grille. (See Remove Grille and Remove Grille Housing., in Group 1921.)
2. Drain engine coolant. The approximate capacity of engine coolant is 19.4 L (20 qt).
3. Remove hood.(See Remove and Install Hood, Group 1910.)
4. Remove hood support and engine side shields. (See Remove and Install Hood Support and Engine Side Shields in Group 1910.)
5. Turn battery disconnect switch to OFF and disconnect battery positive cable.
6. Remove grille housing. (See Remove Grille and Remove Grille Housing., in Group 1921.)
7. Remove fan blade, pulley and shroud. (See Remove and Install Fan Blade, Pulley and Shroud, in Group 0510.)
8. Remove fan belt.

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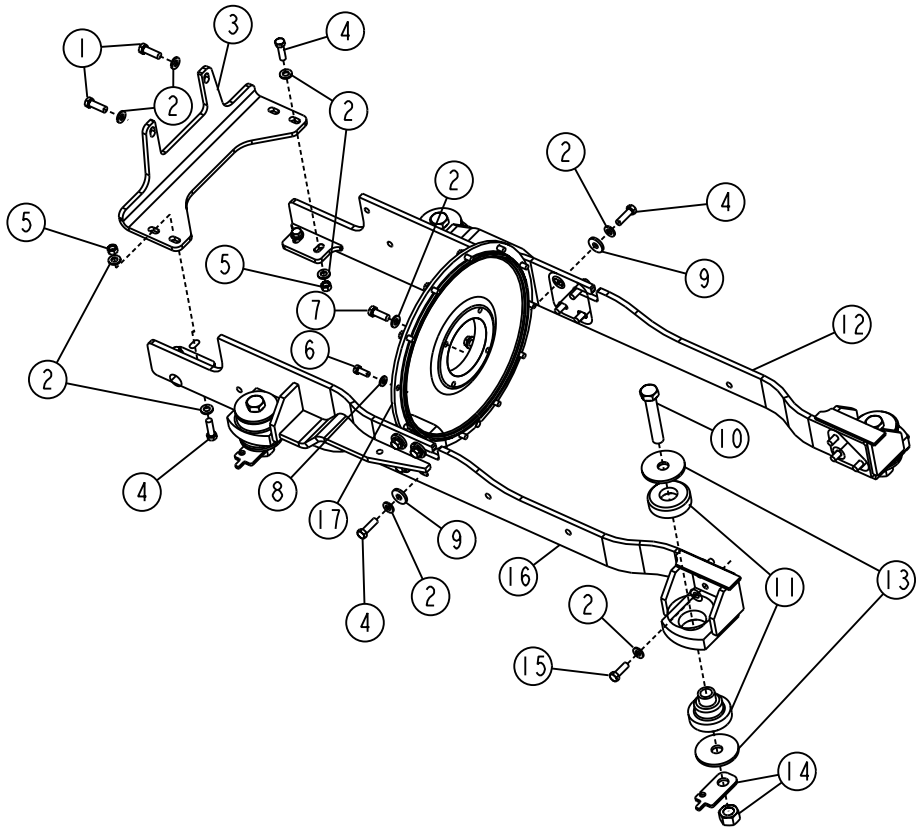
CED,TX03399,6007 –19–15NOV00–1/20

Engine and Power Train Mounting Parts



T130806 –UN–07JUL00

T130806

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1—Rear Support Bracket-to-Rear Hydraulic Pump Cap Screw (2 used)
2—Washer (24 used)
3—Rear Support Bracket
4—Rear Support Bracket and Rear Side Rails-to-Engine Cap Screw (12 used)
5—Nut (4 used)
6—Flywheel Cover-to Engine Flywheel Cap Screw (12 used)
7—Pump-to-Flywheel Cover Cap Screw (4 used)
8—Washer (12 used)
9—Washer (8 used)
10—Side Rails-to-Main Frame Cap Screw (4 used)
11—Rubber Mounts (4 sets)
12—Left Side Rail Frame
13—Washer (8 used)
14—Retainer Plate and Nut Assembly (4 used)
15—Left and Right Front Rails-to-Engine Cap Screws (6 used)
16—Right Side Rail Frame
17—Flywheel Cover

Item	Measurement	Specification
Engine and Power Train Mounting Parts		
Side Rails-to-Engine Cap Screws	Torque	130 N•m (96 lb-ft)
Pump-to-Flywheel Cover Cap Screws	Torque	112 N•m (83 lb-ft)
Flywheel Cover to Engine Flywheel Cap Screws	Torque	73 N•m (54 lb-ft)
Rear Pump Support Bracket-to-Side Rails Cap Screws	Torque	140 N•m (103 lb-ft)

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CED,TX03399,6020 –19–24MAR00–1/2

Specifications

Item	Measurement	Specification
Transmission Controller		
Controller Mounting Cap Screws and Ground Strap-to-Controller Cap Screws	Torque	6.8 N•m (60 lb-in.)
Ground Strap-to-Boss on Tank Cap Screw	Torque	15.3 N•m (135 lb-in.)

CED,TX03399,6194 –19–18AUG00–1/1

Welding Procedure

IMPORTANT: Before welding on this machine: To avoid electronic component damage, turn the electrical (battery) disconnect switch off.

Turn (S2) electrical (battery) disconnect switch OFF.

Clamp welding ground clamp as close to point of welding as possible.

Never attach welding ground clamp to track pad.

CED,OUTX547,155 –19–21OCT98–1/1

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1675
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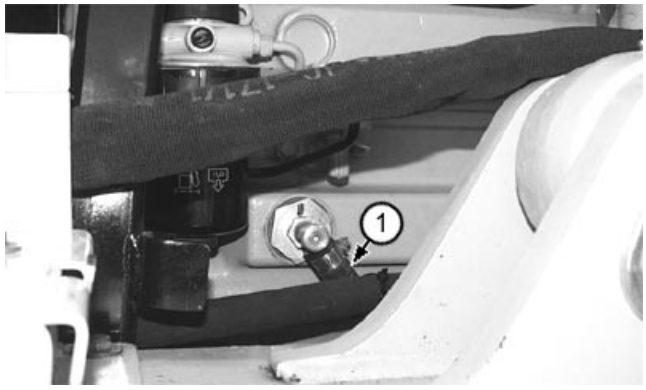
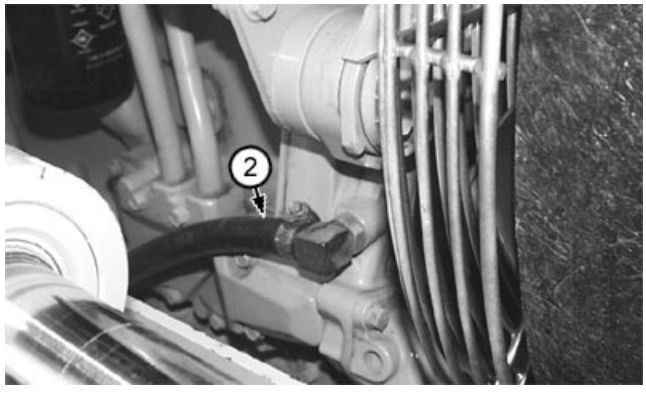
19. Disconnect hoses (1) and (2) from engine.

1—Engine-to-Block Hose
2—Engine-to-Water Pump Hose



T132291B –UN–07JUL00



T132292B –UN–07JUL00

CED,TX03399,6046 –19–29MAR00–6/12

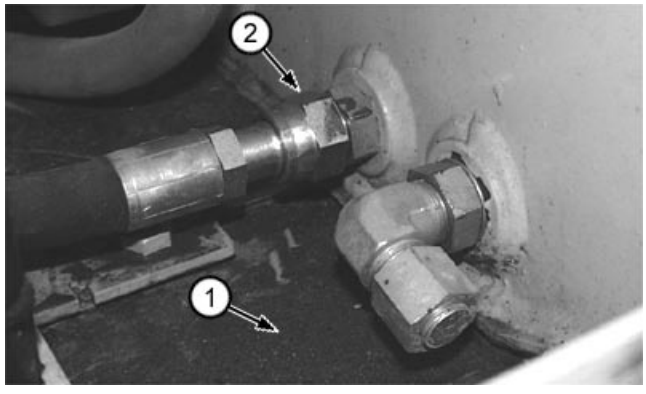
20. Drain or apply vacuum to hydraulic reservoir. Approximate capacity of hydraulic reservoir is 53.5 L (14.1 gal).

21. Remove cover (1).

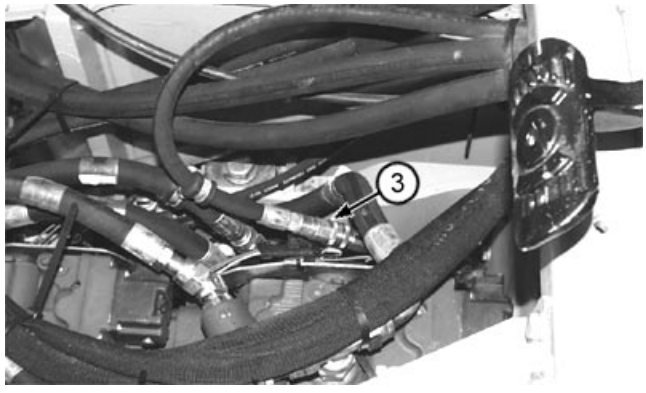
22. Disconnect brake valve return hose (2) from reservoir. Close all openings using caps and plugs.

23. Remove cap screw and clamp to disconnect brake valve charge pressure hose (3) from pump quick coupler.

1—Cover
2—Brake Valve-to-Reservoir Hose
3—Hydraulic Pump-to-Brake Valve Hose



T130905B –UN–16MAY00



T130906B –UN–16MAY00

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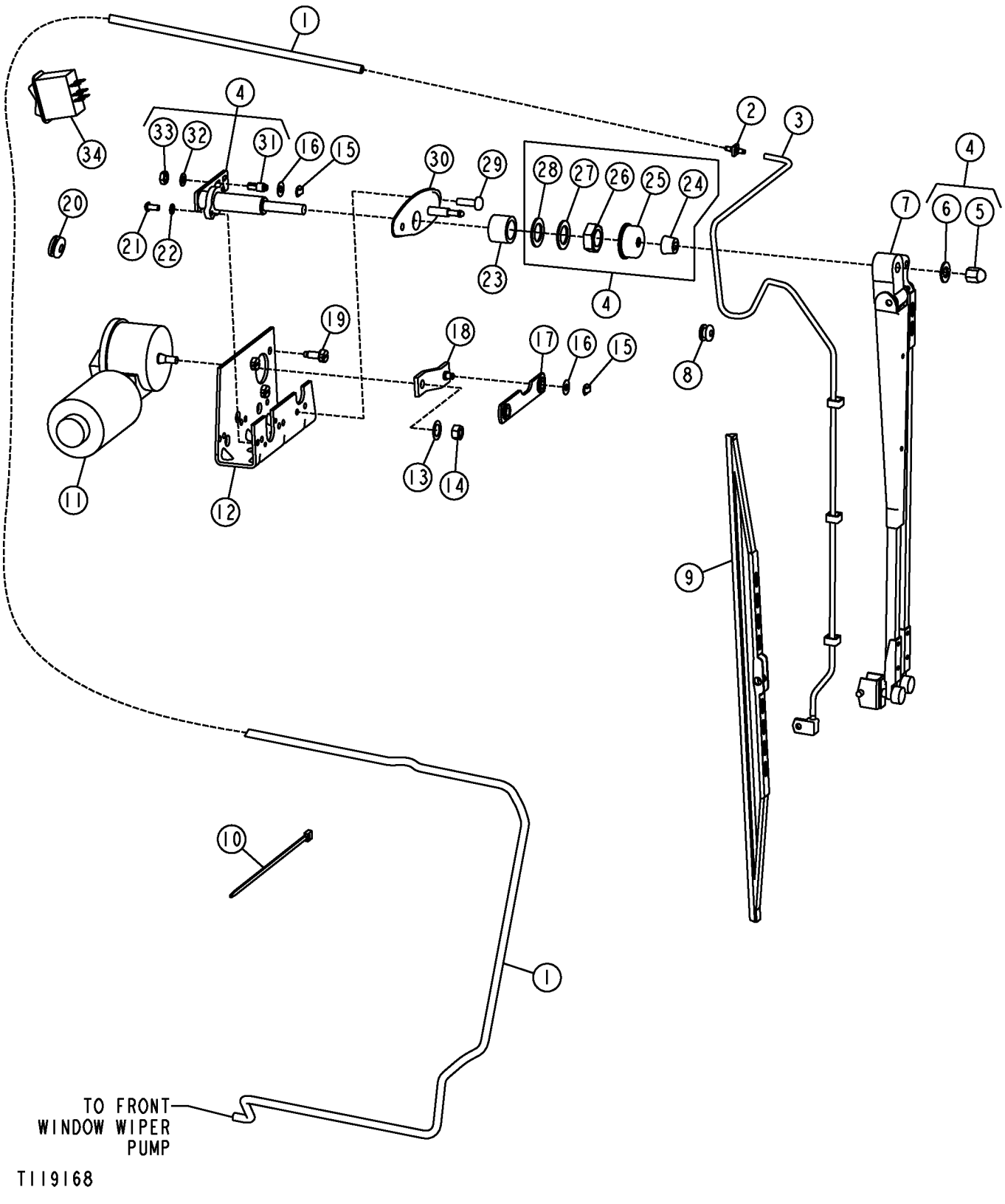
CED,TX03399,6046 –19–29MAR00–7/12

Remove and Install Front Window Wiper



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CED,TX03399,6052 –19–29MAR00–1/2

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,TX03399,6173 –19–11AUG00–1/6

Electronic Leak Detector JT02081

Used to detect refrigerant leaks.

CED,TX03399,6173 –19–11AUG00–2/6

Adapter JT03188

Used to connect flusher outlet hose to receiver/dryer

CED,TX03399,6173 –19–11AUG00–3/6

Adapter JT02101

Used to connect aerator nozzle to compressor inlet line

CED,TX03399,6173 –19–11AUG00–4/6

Bench Mounted Holding Fixture D01006AA

Used to hold compressor during repair.

CED,TX03399,6173 –19–11AUG00–5/6

Compressor Holding Fixture . . . . . .DFRW20[1]

Used to hold compressor during repair.

[1]*See Section 99 for instructions to make tool.*

CED,TX03399,6173 –19–11AUG00–6/6

8. Attach a return hose and aerator nozzle to outlet end of receiver/dryer inlet hose using JT03197 Adapter. Put nozzle in container to collect flushing solvent.

9. Fill flusher tank with 4 L (1 gal) of solvent and fasten all connections.

Specification

Flusher Tank—Capacity ..... 4 L (1 gal)

NOTE: Air pressure must be at least 620 kPa (6.2 bar) (90 psi) for flushing and purging.

10. Connect a supply line of moisture-free compressed air or dry nitrogen to flusher air valve. Adjust regulator to specification.

Specification

Regulated Air—Pressure ..... 620 kPa (6.2 bar) (90 psi) Minimum

11. Open air valve to force flushing solvent into condenser circuit. Flusher tank is empty when hose pulsing stops. Additional flushing cycles are required if system is heavily contaminated with burned oil or metal particles.

NOTE: Purging the condenser circuit takes 10—12 minutes to thoroughly remove solvent.

Specification

Condenser Purging—Time ..... 10—12 Minutes

12. Disconnect hose from aeration nozzle to check circuit for solvent. Hold hose close to a piece of cardboard; continue purging until cardboard is dry.

13. Go to Step 13 to flush evaporator. Go to Step 22 if evaporator does not require flushing.

14. **To Flush Evaporator:**

    If system is contaminated with burned refrigerant oil or debris, remove and bench flush evaporator. Go to Step 18 to flush evaporator through expansion valve, if oil appears normal. Remove evaporator. (See Remove and Install Evaporator or Heater Core in this group.)

15. Force flushing solvent through evaporator inlet with compressed air.

16. Purge system until dry. (See Purge Air Conditioner System in this group.)

17. Install evaporator.

18. Go to Step 22.

19. **To Flush Evaporator Through Expansion Valve:**

    Connect flusher outlet hose to connection of receiver/dryer outlet hose using JT03188 Adapter.

20. Attach a hose and aerator nozzle to compressor inlet line using JT02101 Adapter. Put nozzle in a container to collect solvent.

21. Repeat Steps 8, 9 and 10 to flush evaporator.

NOTE: Purging the evaporator circuit takes 12—15 minutes to thoroughly remove solvent.

22. Disconnect hose from aeration nozzle to check circuit for solvent. Hold hose close to a piece of cardboard. Continue purging until cardboard is dry.

23. Install a new receiver-dryer compatible with R134a refrigerant. (See Remove and Install Receiver-Dryer in this group.) Tighten connections and mounting bracket.

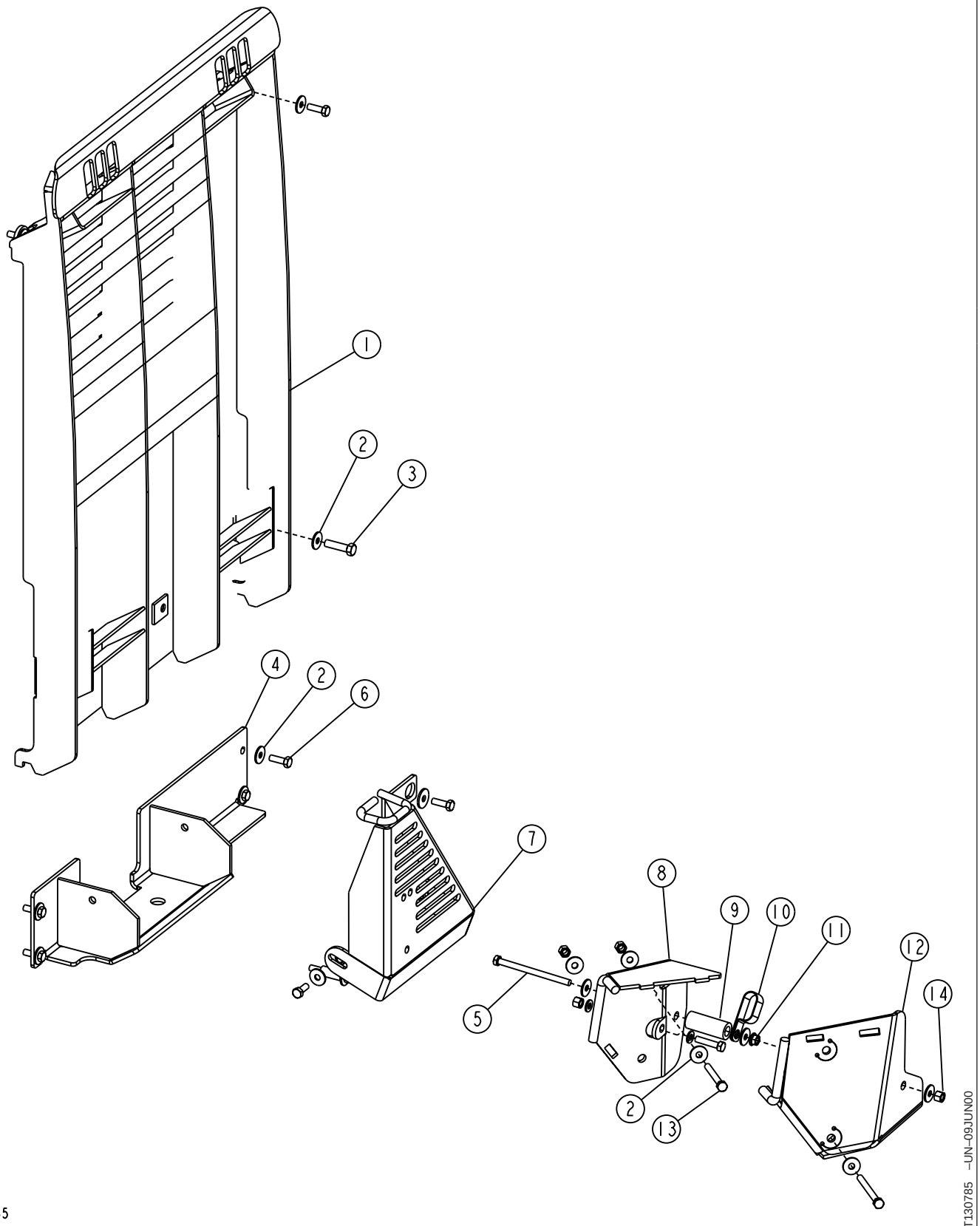
24. Add required oil. (See R134a Component Oil Charge in this group.)

25. Install compressor, and connect refrigerant lines to manifold.

26. Connect clutch coil wire. Install drive belt.

27. Purge system. (See procedure in this group.)

CED,TX03399,2293 –19–16APR99–2/2



Heavy Duty Grille and Extreme Duty Hose Guard

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CED,TX03399,6059 –19–30MAR00–3/7