DOZER

SERVICE MANUAL

HD130

HYUNDAI

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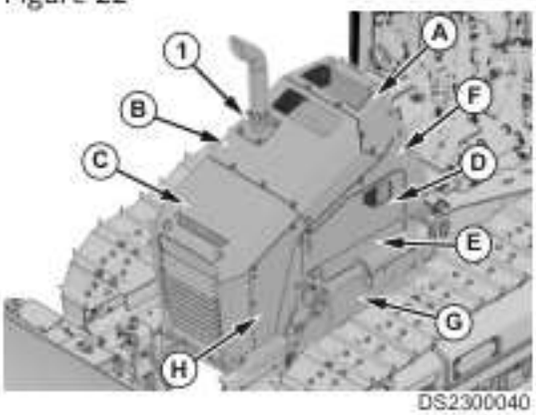
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Removal

Front Cover

1. Remove V-clamp and muffler pipe.
   Figure 22

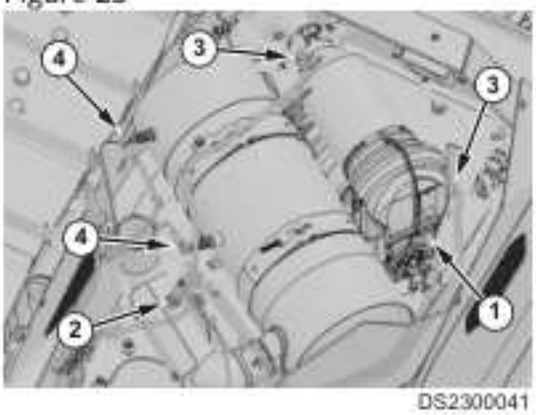


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2. Remove the muffler cover (1).
   - Tool: 19 mm ( )
   - Torque: 107.9 N.m (11 kg.m, 79.6 ft lb)
   - Weight: about 4 kg (8.8 lb)
3. Remove bolts from all left side front cover.
   - Tool: 19 mm ( )
   - Torque: 107.9 N.m (11 kg.m, 79.6 ft lb)
   - (A) Cover Weight: about 9 kg (19.8 lb)
   - (B) Cover Weight: about 22 kg (48.5 lb)
   - (C) Cover Weight: about 35 kg (77.2 lb)

Engine Sensors - After Treatment System

1. Disconnect NOx upstream sensor (1).
   Figure 23



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   - Torque: 49.0 N.m (5 kg.m, 36.2 ft lb)
2. Disconnect NOx downstream sensor (2).
   - Torque: 49.0 N.m (5 kg.m, 36.2 ft lb)
3. Disconnect temperature sensor (3).

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Completing Work

1. Check oil, coolant and fuel leak from the machine.
2. Check all oil level and if necessary, add oil.
3. Fill up the fuel tank to the standard level.
4. Apply grease to all lubrication points.
5. When fuel component has been disconnected, air must be bled from circuit.
   For details, see the Operation and Maintenance Manual.
6. When hydraulic component has been disconnected, air must be bled from circuit.
   For details, see the Operation and Maintenance Manual.
7. Start the engine and run at low idle for about 5 minutes.
8. Perform the machine performance test.

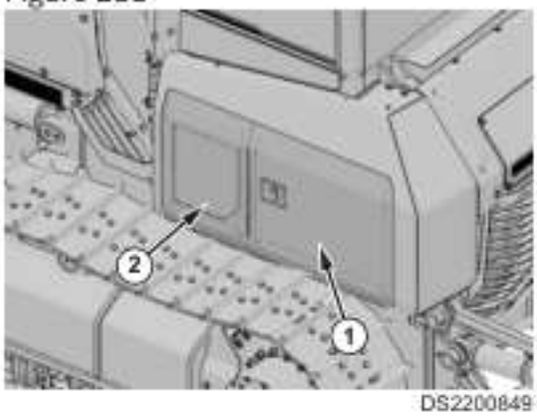
Battery Assembly

Repair Procedure Quick Guide

Step-A. Open the left side door
Step-B. Remove upper cover
Step-C. Disconnect wiring harness
Step-D. Remove battery assembly

Removal

1. Open the left side door (1).
   Figure 288



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Gauge Panel Fault Code	P Code	Fault Code Description
E004374-04	P208C	DEF Supply Pump Motor Signal output Short circuit to ground Fault - (P208C)
E004374-05	P208A	DEF Supply Pump Motor Signal output Open circuit Fault - (P208A)
E004374-07	P208B	DEF Supply Pump Motor Signal output Over temperature Fault - (P208B)
E004374-08	P108A	DEF Supply Pump Motor Speed Deviation Fault - (P108A)
E004374-09	P108B	DEF Supply Pump Motor Speed Deviation Permanent Fault - (P108B)
E004374-12	P108C	DEF Supply Pump Motor No activation Fault - (P108C)
E004781-15	P24A3	DPF Soot mass too high status (> 120%) - (P24A3)
E004781-16	P2463	DPF Soot mass high status (> 110%) - (P2463)
E005067-03	P0593	PTO (Idle up) Lamp Short to Battery - (P0593)
E005067-04	P0592	PTO (Idle up) Lamp Short to Ground - (P0592)
E005067-05	P0591	PTO (Idle up) Lamp Open circuit - (P0591)
E005099-03	P055D	Oil Pressure Warning Lamp Short to Battery - (P055D)
E005099-04	P055C	Short circuit to ground error of oil pressure lamp - (P055C)
E005099-05	P055B	Oil Pressure Warning Lamp Open circuit - (P055B)
E005313-03	P0193	Rail pressure sensor High fault - (P0193)
E005313-04	P0192	Rail pressure sensor Low fault - (P0182)
E005419-03	P02E3	Throttle valve H-Bridge Driver Short circuit to battery - (P02E3)
E005419-04	P02E2	Throttle valve H-Bridge Driver Short circuit to ground - (P02E2)
E005419-05	P02E0	Throttle valve H-Bridge Driver Open Circuit Fault - (P02E0)
E005435-10	P1453	DEF pressure stabilization error at DETECTIONMODE (DEF pump pressure is not stable) - (P1453)
E005435-12	P204A	DEF pressure check error at DETECTIONMODE (Detected an insufficient pressure drop) - (P204A)
E005436-03	P20A3	DEF Reverting valve output Short circuit to battery Fault - (P20A3)
E005436-04	P20A2	DEF Reverting valve output Short circuit to ground Fault - (P20A2)
E005436-05	P20A0	DEF Reverting valve output Open circuit Fault - (P20A0)
E005436-07	P20A1	DEF Reverting valve output Over temperature Fault - (P20A1)
E005436-11	P20A5	DEF Reverting valve Pressure drop plausibility fault - (P20A5)
E005436-14	P1461	DEF Reverting valve is blocked (Detected an insufficient pressure drop) - (P1461)
E005491-03	P20C0	DEF Pressure line heater relay output Short circuit to battery Fault - (P20C0)
E005491-04	P20BF	DEF Pressure line heater relay output Short circuit to ground Fault - (P20BF)
E005491-05	P20BD	DEF Pressure line heater relay output Open circuit Fault - (P20BD)

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General Maintenance Instructions

Safety Instructions

⚠ WARNING

AVOID DEATH OR SERIOUS INJURY

Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments repairs or service. Untrained operators and failure to follow instructions can cause death or serious injury.

Welding Precautions and Instructions

⚠ WARNING

AVOID DEATH OR SERIOUS INJURY

To avoid accidents, personal injury and the possibility of causing damage to the machine or to components, welding must only be performed by properly trained and qualified personnel, who possess the correct certification (when required) for the specific welding fabrication or specialized repair being performed.

⚠ WARNING

AVOID DEATH OR SERIOUS INJURY

Structural elements of the machine may be built from a variety of steels. These could contain unique alloys or may have been heat-treated to obtain particular strength characteristics. It is extremely important that welding repairs on these types of steel are performed with the proper procedures and equipment. If repairs are performed incorrectly, structural weakening or other damage to the machine (that is not always readily visible) could result. Always consult with your dealer before welding on integral components of the machine. It is possible that some types of structurally critical repairs may require Magnetic Particle or Liquid Penetrant testing, to make sure there are no hidden cracks or damage before the machine can be returned to service.

⚠ WARNING

AVOID DEATH OR SERIOUS INJURY

Always perform welding procedures with proper safety equipment and adequate ventilation in a dry work area. Keep a fire extinguisher near and wear personal protective equipment.

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3. Only authorized people may start and operate engines. Unauthorized people should not be allowed to handle engines.
4. Do not access running or rotating parts while the engine is in operation.
5. Be careful not to touch or contact the engine during operation since it becomes hot during operation.
6. Exhaust gas is poisonous. Fully ventilate before starting engine. If the space is airtight, ensure that it is well ventilated.

Cautions for Inspection and Repair

1. Inspection and repair of engine should be performed only when the engine is stopped. Otherwise, burns or safety accidents may occur, so do not perform inspection or repair while the engine is running.
2. If it is absolutely necessary to perform inspection or repair on the operating engine, do not get close to the rotating parts.

⚠ DANGER

AVOID DEATH
When accessories such as necklaces, rings, watches, or gloves become stuck in rotating parts while the engine is running, serious bodily injury may occur.

⚠ WARNING

AVOID DEATH OR SERIOUS INJURY
Do not exchange or disassemble a pipe or horse (from the engine fuel circuit, engine oil circuit, coolant circuit, or compressed air circuit) while the engine is running. The leaked liquid may cause bodily injuries.

3. Use an engine oil drain container that is large enough to prevent the overflow of engine oil while draining engine oil.
4. Open the engine coolant cap after fully cooling the engine to exchange or replenish coolant.

⚠ WARNING

AVOID DEATH OR SERIOUS INJURY
If the coolant cap is opened while the engine is still hot, hot water will spurt out and may cause burns. Open the engine coolant cap after fully cooling the engine.

5. Fuel is highly flammable. Smoking or use of fire around an engine may cause fire.

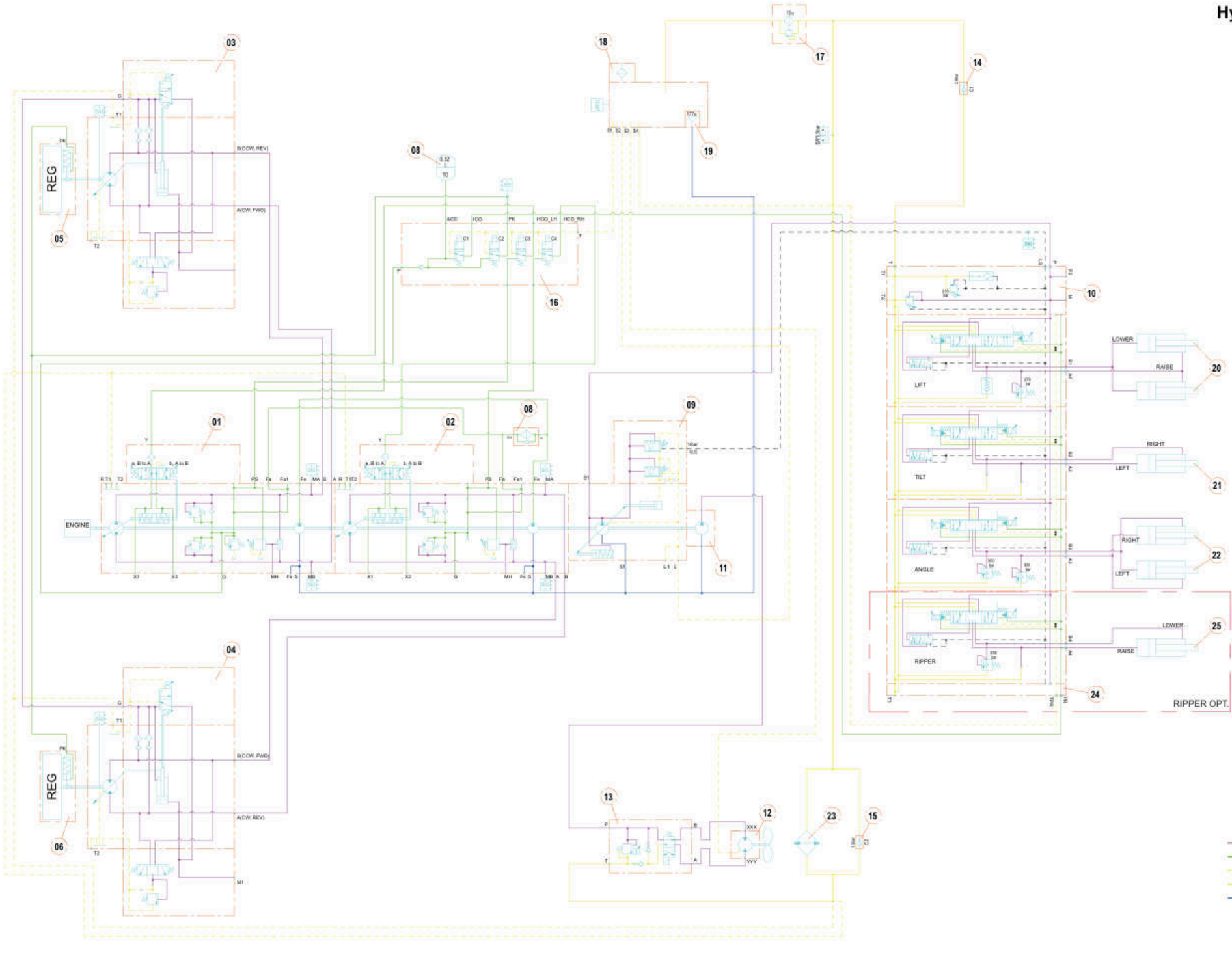
⚠ WARNING

AVOID DEATH OR SERIOUS INJURY
Only refuel when the engine is stopped.

6. Mark and separately manage the containers for storing coolant from beverage containers for avoiding confusion. See a doctor immediately in case of drinking coolant.
7. Follow the instructions provided by the battery manufacturer when checking or handling batteries.

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Hydraulic Schematic



STD	1. LEFT TRAVEL PUMP 2. RIGHT TRAVEL PUMP 3. LEFT TRAVEL MOTOR 4. RIGHT TRAVEL MOTOR 5. LEFT REG. GEAR BOX 6. RIGHT REG. GEAR BOX 7. PILOT FILTER 8. PILOT ACCUMULATOR 9. IMPLEMENT PUMP 10. IMPLEMENT CONTROL VALVE(STD) 11. FAN PUMP 12. FAN MOTOR 13. FAN CONTROL VALVE 14. BYPASS VALVE(MAKE-UP) 15. BYPASS VALVE(COOLER) 16. PILOT SUPPLY VALVE 17. RETURN FILTER 18. AIR BREATHER 19. SUCTION STRAINER 20. LIFT CYLINDER 21. TILT CYLINDER 22. ANGLE CYLINDER 23. OIL COOLER
OPT	24. IMPLEMENT CONTROL VALVE(OPT) 25. RIPPER CYLINDER

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