PART NO.

HITACHI

Workshop Manual

EX

EX5500

Hydraulic Excavator

Service Manual consists of the following separate Part No.
Technical Manual (Troubleshooting)
Workshop Manual

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Disassemble Regulator

1. Remove socket bolts (37) and (38) to remove the regulator.

   : 6 mm

2. Remove socket bolts (33) to remove cover (34) and O-rings (36) and (35).

   : 5 mm

3. Remove socket bolts (49), cover (45) assembly, spring seat (12), spring (10), spring (9), spring seat (8), spring seat (31), spring (30), and spring seat (29) from casing (50).

IMPORTANT: Never attempt to remove adjusting screw (41), lock nut (46), adjusting screw (42) and lock nut (43) from cover (45).
Also, never attempt to remove adjusting screw (47) and lock nut (48) from cover (45). Setting for the flow control may be changed.

   : 5 mm

4. Remove socket bolts (66) and (67), cover (68), O-rings (62), (63), (64), and (69), spring (17), pin (1), sleeve (2), sleeve (5), and compensating piston (6) from casing (50).

   : 5 mm

5. Remove retaining ring (14), spring seat (15), spring (16), spring (17) and sleeve (19).



6. Remove lock rings (54) and (58) from casing (50). Using a M6 bolt, remove support plug (52), support plug (56), and pin (55).



7. Remove lever (26) from casing (50) with a pair of tweezers.

IMPORTANT: Do not remove pin (27).

8. Remove pin (24) using a thin copper bar (less than dia. 4 mm). Remove feedback lever (23).

NOTE: Take care not to hit pin (24) against lever (22) when pulling it out.

9. Remove lever (22) from casing (50).

IMPORTANT: Do not remove pins (51) and (21) when removing lever (22).

10. Remove pilot piston (28), spool (20), and compensating rod (7) from casing (50).

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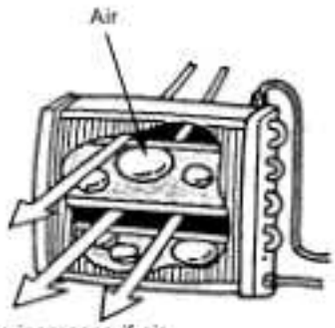
CHARGE AIR CONDITIONER WITH REFRIGERANT

Necessity of Purging

Be sure to purge the air conditioner circuit with a vacuum before charging with refrigerant (R134a) because the following problems can arise if air or other gases remain in the A/C circuit.

1. Pressure rise in the high pressure side

   If air remains in the air conditioner circuit, this way disturb the heat exchange between refrigerant and air in the condenser, causing pressure to rise in the high pressure side (compressor side). Usually, refrigerant gas is easily liquefied; however, air cannot be liquefied and remains as a gas in the condenser because the temperature at which air liquefies is extremely low. That is, liquidation of the refrigerant gas in the condenser decreases by the amount of air in the circuit, and the gas pressure in the high pressure side increases accordingly.



Pressure increases if air remains in the air conditioner circuit

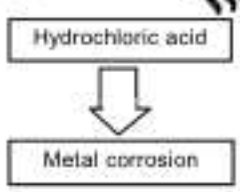
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2. Metal corrosion

   If air remains in the air conditioner cirucuit, a chemical reaction between refrigerant and moisture in the air takes place, and as a result, hydrochloric acid, that corrodes metals such as aluminum, copper and iron, is produced.



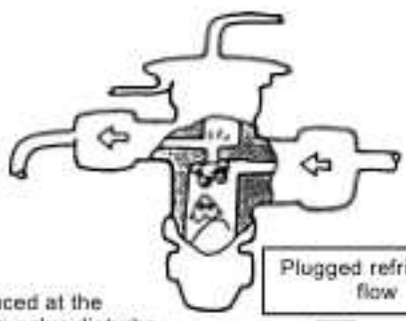
Hydrochloric acid corrodes metals if moisture exists



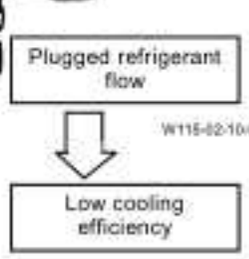
W115-02-10-002

3. Plugging of the expansion valve by moisture

   When high pressure refrigerant gas passes through the expansion valve, gas pressure decreases and temperature drops. Moisture included in high pressure refrigerant gas in the air conditioner circuit freezes at the expansion valve orifice, plugging refrigerant flow. Operation of the air conditioner becomes unstable and cooling efficiency lowers.

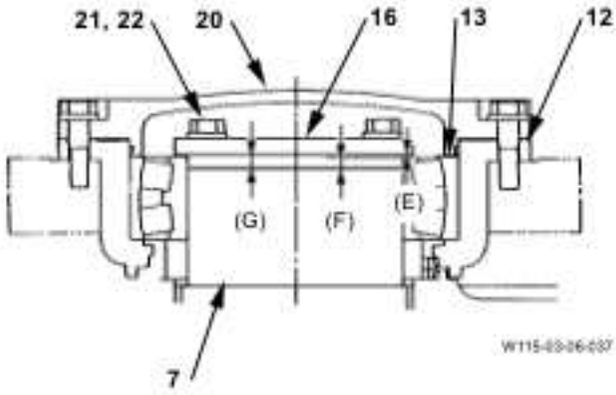


Ice produced at the expansion valve disturbs refrigerant flow, lowering cooling efficiency



W115-02-10-003

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CAUTION: Plate (16) weight: 68 kg (150 lb)
Take care not to hurt hands with the power wrench reaction bar.

IMPORTANT: When installing plate (16), measure dimension (E) and confirm that it is within the standard value range (0 to 0.1 mm). If not, adjust dimension (E) by adding or removing shims (14) and (15).
Also when measuring dimension (F), install cartridge (12) and secure it by temporarily tightening bolts (J833606) (4 used) without installing cover (20).

13. Using a power wrench, temporarily secure cartridge (12) with bolts (J833606). Measure dimensions (F) and (G).
    : 55 mm
    : 1570 N·m (160 kgf·m, 1160 lbf·ft)

14. Remove bolts (J833606). According to formula (F-G), calculate dimension standard valve to adjust shim (14 and 15). Install shims (14) and (15) onto shaft (7).
    Secure plate (16) onto shaft (7) with bolts (22) and washers (21) (10 used each)
    : 55 mm

NOTE: Dimension (E) = Clearance between plate (16) and bearing (13) (0 to 0.1 mm).
Standard value range: 0 to 0.1 mm
Dimension (F) = Height from bearing (13) end to shift (7) end.
Dimension (G) = Height of the stepped part of plate (16).
1 mm = 0.03937 in

IMPORTANT: When dimension (E) value goes beyond the scope which can be adjusted by shim (14 and 15), this installation quality is considered bad.

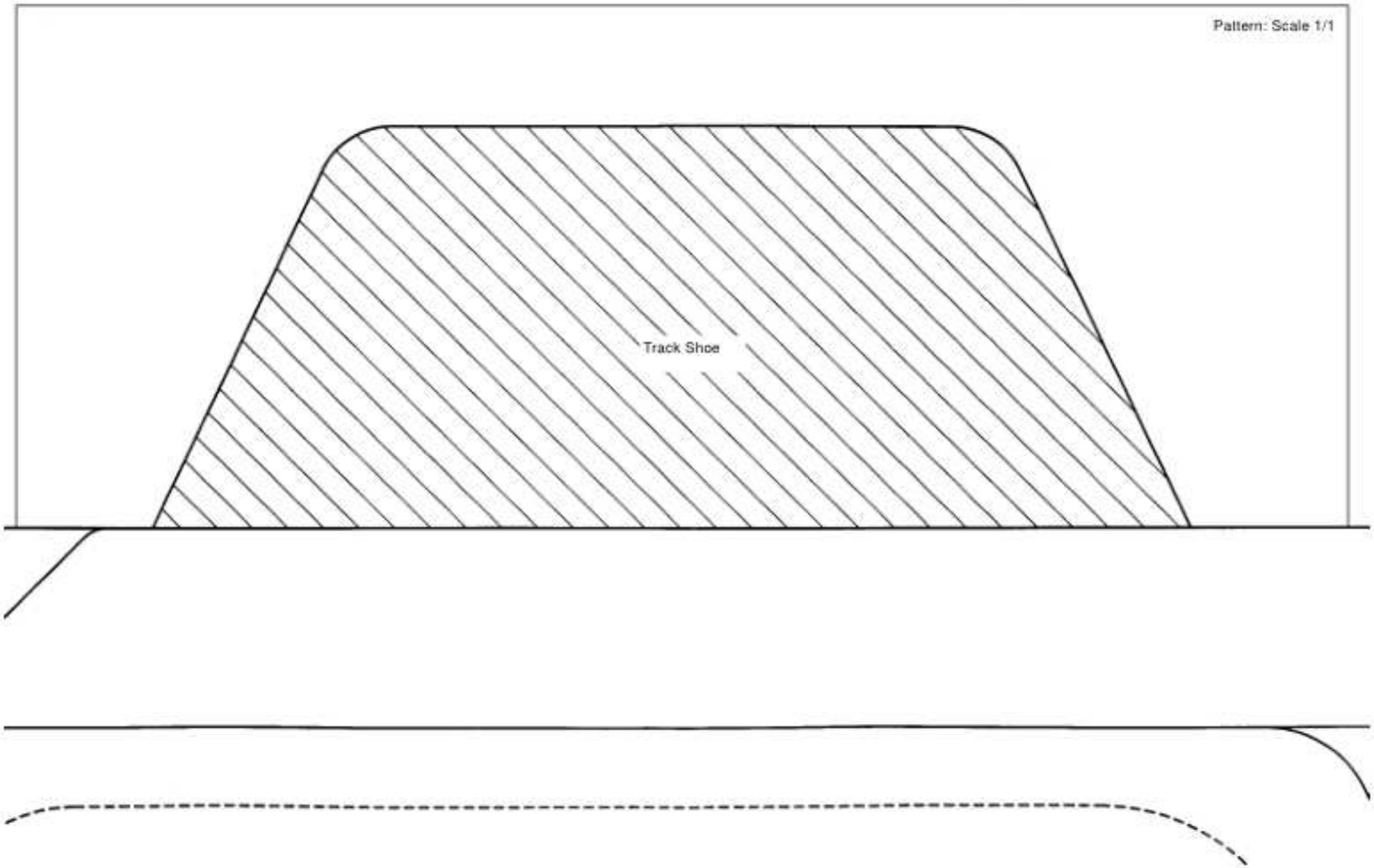
CAUTION: Take care not to hurt hands with the power wrench reaction bar.

15. With a power wrench, secure plate (16) onto shaft (7) with bolts (22) and washers (21) (10 used each).
    : 55 mm
    : 3140 N·m (320 kgf·m, 2314 lbf·ft)

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SUPPLEMENT / Track Shoe Pattern (B)

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