CASE

PROFESSIONAL PARTNER

SERVICE MANUAL

CRAWLER EXCAVATOR

CX800
TIER III

87571787 NA

Issued 07-2006

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CX800 Tier 3 Crawler Excavators
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* *Consult the Engine Service Manual 9-36410NA*

[redacted] *Sections to be distributed at a later date*

NOTE: CNH Company reserves the right to make changes in the specification and design of the machine without prior notice and without incurring any obligation to modify units previously sold.

The description of the models shown in this manual has been made in accordance with the technical specifications known as of the date of design of this document.

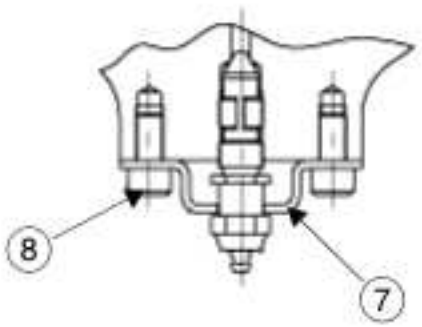
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Removal

Carry out the removal procedure for the idler wheel.

Disassembly

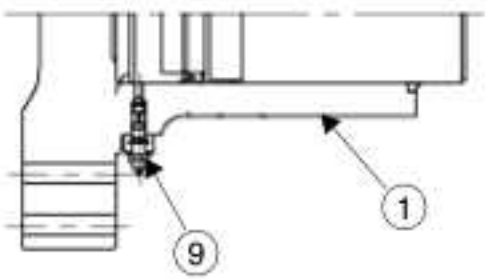
STEP 1



700-6-05-00-24A4

Remove the screws (8) and remove the lock plate (7).

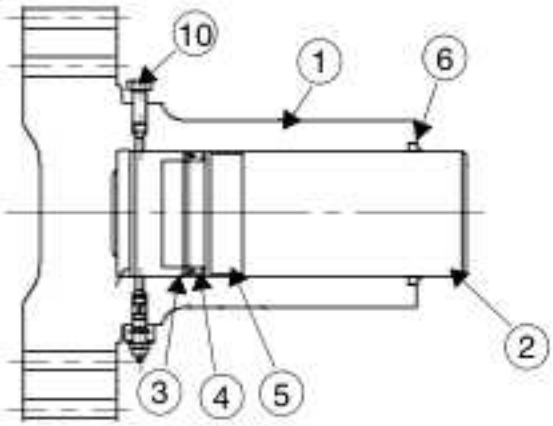
STEP 2



00-6-05-00-24A5

Remove the non-return check valve assembly (9) from the cylinder barrel (1).

STEP 3



700-6-05-00-24A3

Remove the screws (10).
Remove the wiper ring (6) from the cylinder (1).

STEP 4

Remove the cylinder rod (2) from the cylinder barrel (1).

STEP 5

Remove the lock ring (3), the U-packing (4) and the guide ring (5) from the cylinder rod (2).

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4. Reversal Prevention Valve

Fig. A) illustrates relationship between neutral state of the reversal prevention valve and the hydraulic circuit.

Now, let's consider a condition in which braking pressure is generated on the side of port A.

Pressure generated in the port A is transferred into the chamber "n" passing through the passage "l", the hole on the shaft in hr seat [313], and the passage "m" in the plunger [311].

When the pressure P goes beyond the pressure set at the spring [321], the plunger [311] distorts the spring [321] to move to the left.

The plunger [311] pushes the seat [313] which in turn distorts the weak spring [322] to move to the left (shown in Fig. B)).

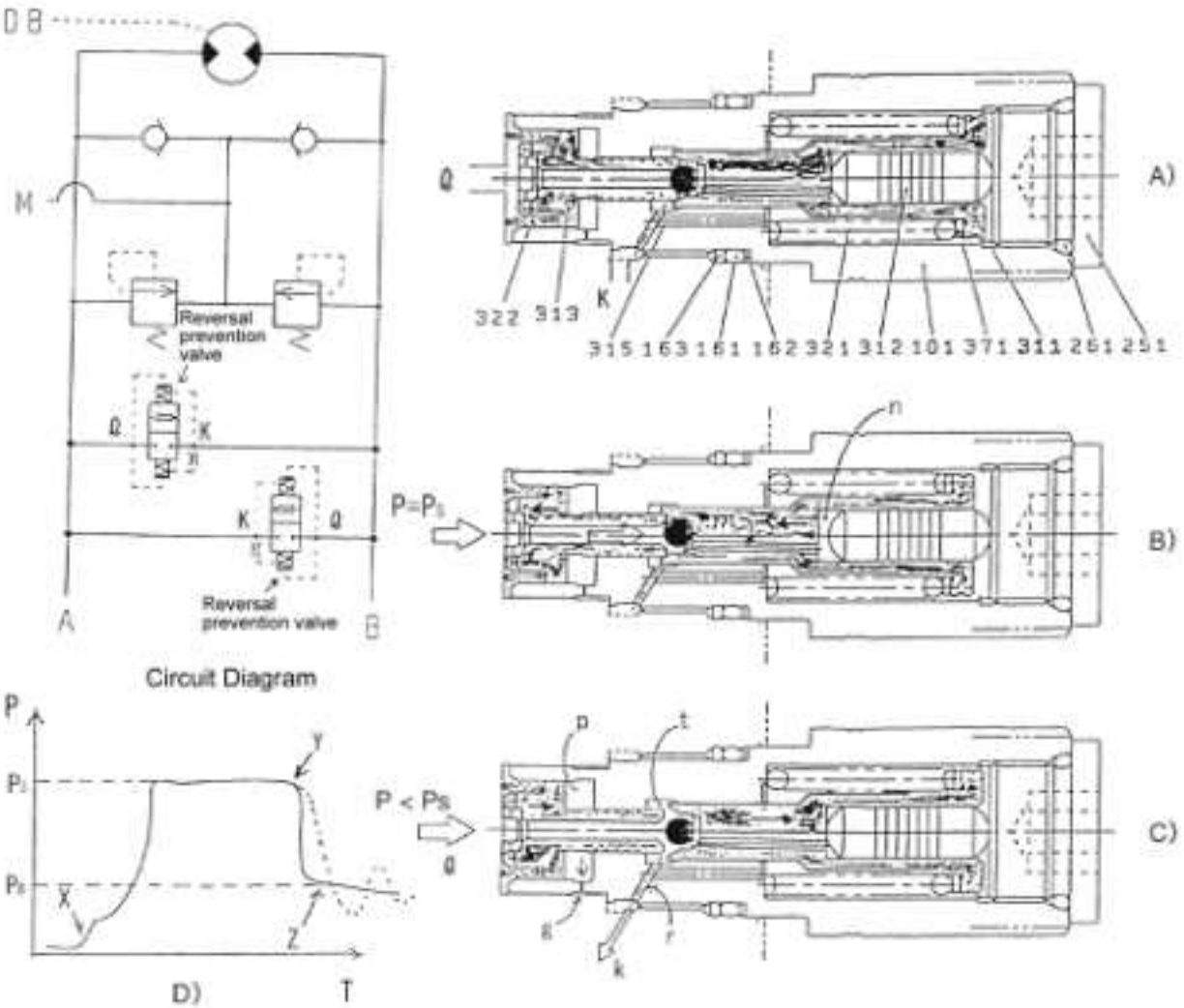
When the inertia load stops moving (point Y in Fig. D), braking pressure is to be decreased.

If it becomes P<Ps, the plunger [311] is shifted to the right or to return side by the spring [321].

Although the seat [313] also tends to be shifted to the right by the spring [322], return of the seat has a time-lag against return of the plunger as the chamber "p" has damping effect by constriction "g".

Therefore, section "t" in the seat opens and the passage, "l" → "t" → "r" → "k", connecting ports A to B or ports on both sides of hydraulic motor is formed.

This makes pressure in the ports A and B to be equal abruptly allowing the condition to be point Z in Fig. D) and prevent the hydraulic motor from being reversed by trapped pressure in the port A. (Refer to Fig. C)



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UNLOADING WORK NO. 1

1. Attachments (Boom, dipper, bucket).
2. Counterweight.
3. Boom cylinder and small accessories.

Purpose

To unload the attachments (boom, dipper, bucket) and counterweight from the trailer truck.

Warning

1. Pay proper care when placing the counterweight on the ground, for example using square lumber under the counterweight for preventing it from falling down on its side.
2. Do not remain in the lifting area under the lifted load.
3. On the first day, make sure cat walks and handrails are fitted. Boom, dipper, bucket and counterweight are fitted on the 2nd day. When unloading, place each component, attachments and other accessories in the location most suitable for reassembling work, considering the order of assembly.
4. Square lumber must be used under the boom, dipper, etc.... when they are placed on the ground.

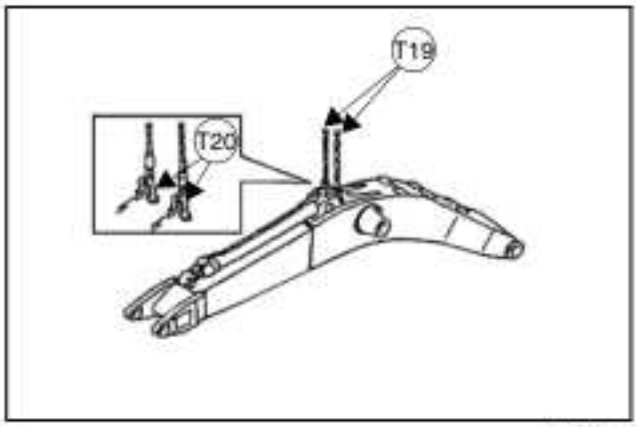
Procedure for unloading

Procedure

1. Check the setting position for Rough terrain cranes.
2. Check the sling position of the wire or the nylon sling.
3. Check there is to damage on the wires, ropes and shackles. Make sure of they are firmly fastened.
4. Take measures to prevent people entering the area under the lifted load.
5. Lift the load slowly.
6. Take precautions such as placing the protective lumber under the load when the load is lowered on the ground.

Attachments

1. Boom + dipper cylinder



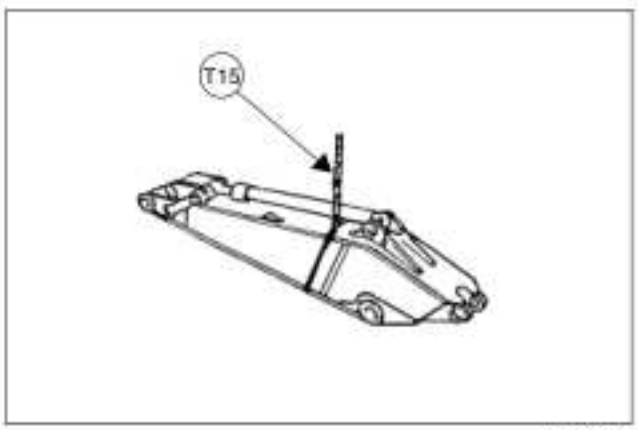
CS01K577

Weight approximatel 8.3 tons.
T19 = 2 wires for 5 tons
T20 = 2 shackles for 5 tons

- Fasten the dipper cylinder on the boom to prevent any damage being consed by dipper movement.

- Attach a shackle (T20) and wires (T19) to the hole provided at the side of the dipper cylinder foot, and lift the boom + dipper cylinder.

2. Dipper + bucket cylinder



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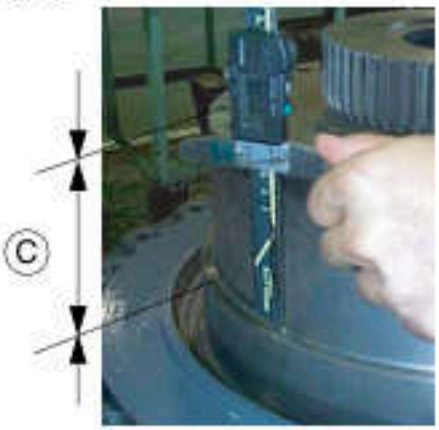
Weight (dipper + bucket cylinder) approximately 4.1 tons
T15 = 1 nylon sling for 5 tons -150 x 6m (20 ft).

- Attach the nylon sling (T15) to the center portion of the dipper and lift it.

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Case subassembly

STEP 1



800-7-02-03-06O1

Measure the distance (C) of the stepping portion of the gear case (1) and record the measurement.

STEP 2



800-7-02-03-06O2

Measure the distance (D) of the stepping portion of the bearing retainer (8) and record.

STEP 3



800-7-02-03-06P1

Set the gear case (1) on the jig plate.

STEP 4



800-7-02-03-06P2

Apply lithium grease to the O-ring of the floating seal (33), and insert it on the gear case (1) by using spatula. After inserted, confirm the O-ring has been firmly inserted and has no twist. Oil leakage may happen and cause damage if the O-ring is improperly assembled on the retainer or the ring is twisted

STEP 5



800-7-02-03-06O1

Assemble the Housing subassembly to the above.

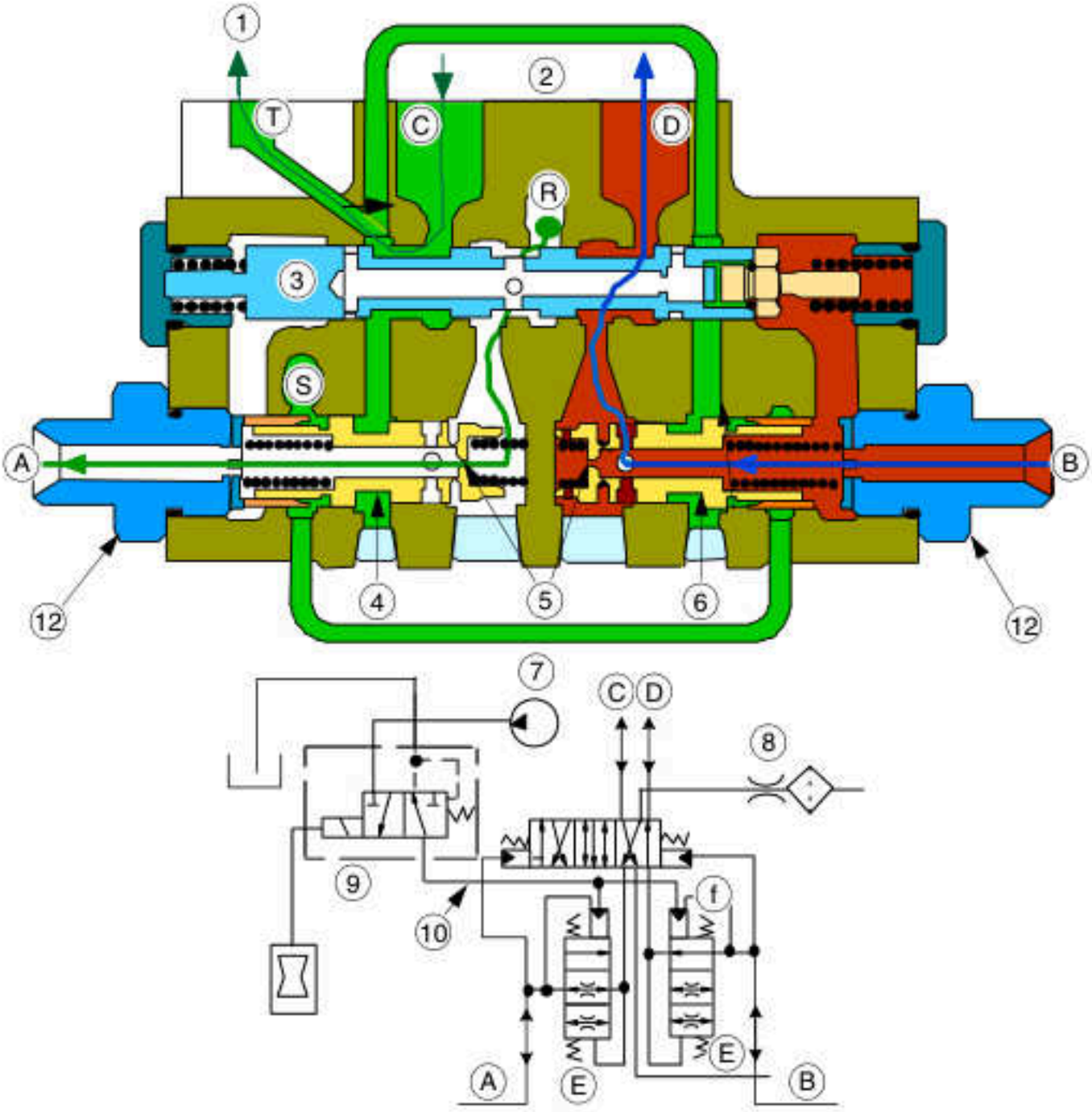
STEP 6



800-7-02-03-06O2

Select the plate shim (7) so that the figure in the (D) + (C) – (B) comes to 0.05 to 0.100, and insert the bearing retainer (8). The plate shim (7) come in 0.1 mm, increments of 1.0 to 2.0 mm.

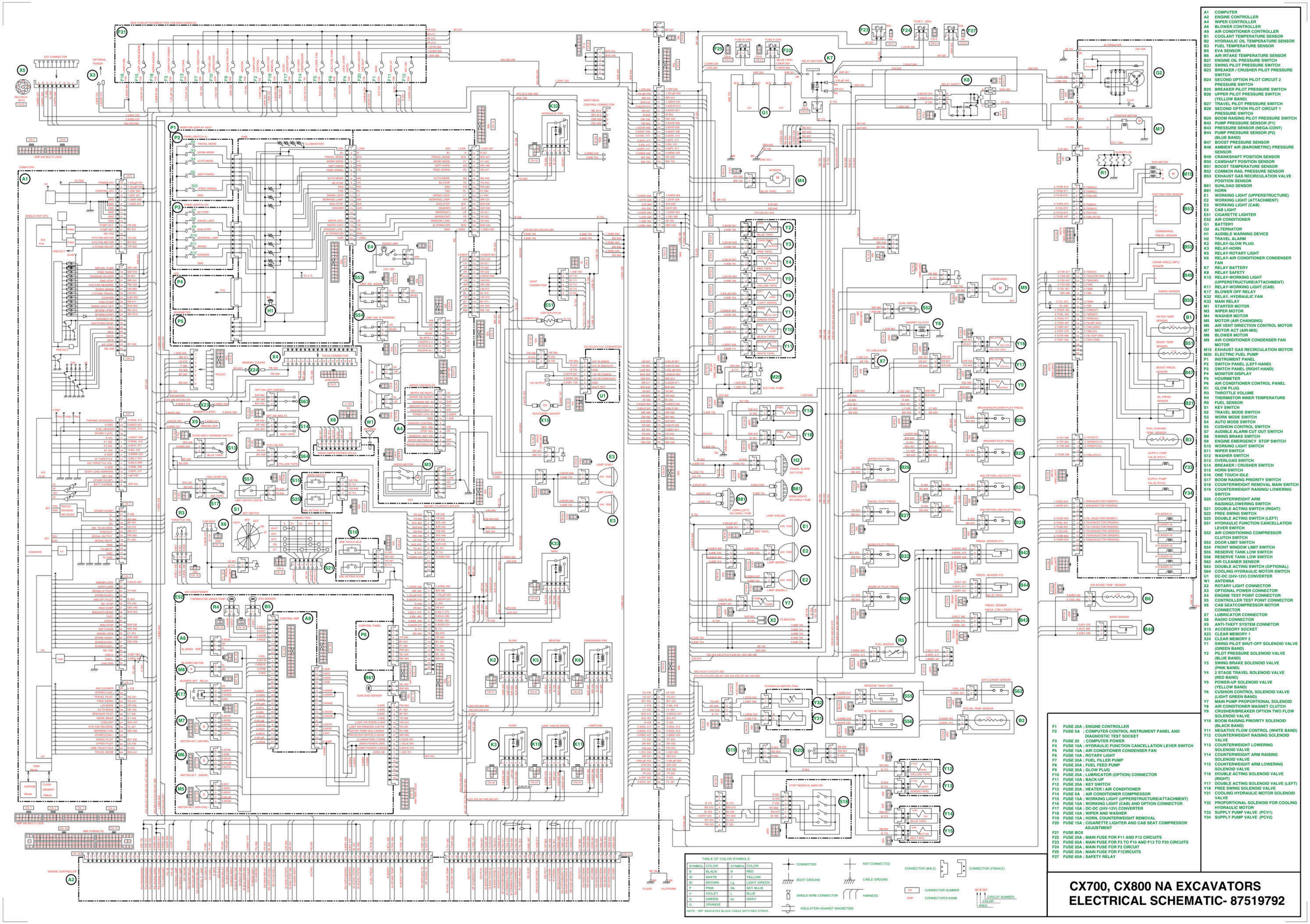
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1 TO RETURN FILTER
2 TO BOOM OR ARM SPOOL
3 SPOOL F
4 SPOOLS E
5 ORIFICES
6 SPOOLS E
7 PILOT PRESSURE
8 FROM CONTROL VALVE RETURN
9 CUSHION SHUT-OFF SOLENOID VALVE
10 S PORT
11 TO RETURN FILTER
12 FROM HAND CONTROL

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