PART NO.

HITACHI

# Workshop Manual

EX

# EX1200-5C

## Hydraulic Excavator

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

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2. Connect hoses (30 to 35).
   - : 19 mm
   - : 29.5 N·m (3 kgf·m, 21.5 lbf·ft)

**IMPORTANT: If the harness is arranged to the inside of spring pin (7), it may make contact with the moving part of the pilot valve which may damage it. Be sure to arrange the harness to the outside of spring pin (7).**

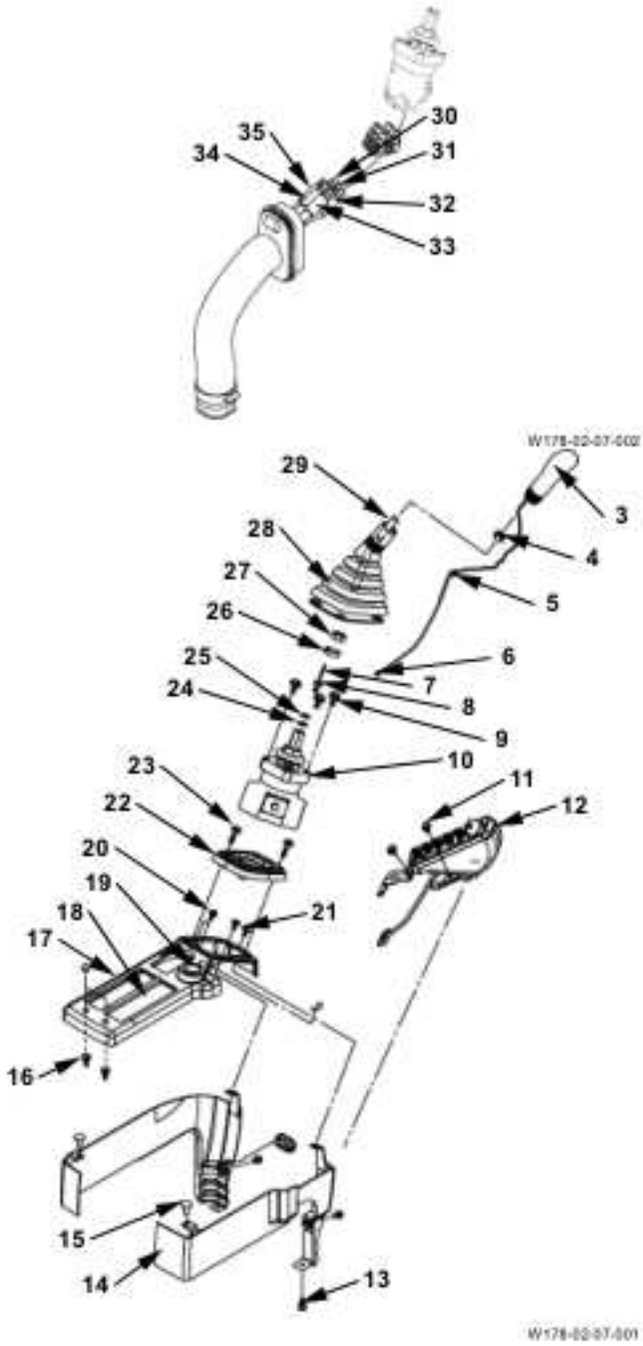
3. Temporarily tighten nut (27) to lever (29), then install washers (24), (25). Install lever (29) onto valve (10) with nut (27). Install boot (28).
   Temporarily tighten nut (4) to lever (29), then install grip (3) with nut (4).
   Pass the harness of grip (3) through the upper hole of boot (28), then connect it to lever (29), via clips (5) and (26). Arrange the harness to the outside of spring pin (7) over bolt (8) head. Connect connector (6).
   - : 22 mm
   - : 26 N·m (2.0 kgf·m, 14.5 lbf·ft)
   - : 19 mm
   - : 26 N·m (2.0 kgf·m, 14.5 lbf·ft)

4. Install switch box (12) with bolt (11), then connect the connector.
   - : 13 mm
   - : 10 N·m (1.0 kgf·m, 7.2 lbf·ft)

5. Connect each harness of key switch (19) and air controller (18).

6. Install cover (14) with bolts (21), (15) and (13). Install cover (17) with bolts (20 and 16).

7. Install cover (22) with bolt (23).






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**CAUTION: 2-Stage carrier (28) assembly weight: 95 kg (210 lb)**

11. Install eyebolts (M12, Pitch 1.75) into the two sling holes in the 2-stage carrier (28) assembly. Hoist the assembly to remove it from 3-stage carrier (1).

**CAUTION: 3-Stage carrier (2) weight: 30 kg (70 lb)**

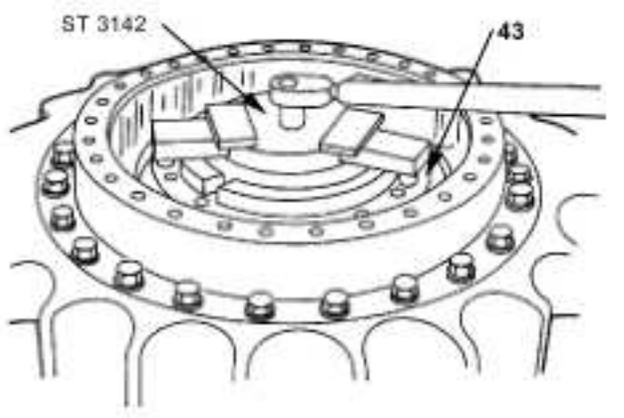
12. Attach a nylon sling to the gear part of 3-stage sun gear (2) (2 places). Hoist the gear to remove it from 3-stage carrier (1).

**CAUTION: 3-Stage carrier (1) assembly weight: 210 kg (460 lb)**

13. Install eyebolts (M12, Pitch 1.75) into the two sling holes in the 3-stage carrier (1) assembly. Hoist the assembly to remove it.

14. Remove bolts (41) (2 used) to remove lock plate (42) from bearing nut (43).
    : 22 mm

15. Install jig (ST 3142) to bearing nut (43). Loosen and remove bearing nut (43) from housing (36).




W111-03-02-018

**CAUTION: Drum (46) + sprocket (45) + the others weight: 560 kg (1230 lb)**

16. Install eyebolts (M22, Pitch 2.5) into the holes for socket bolts (19) of drum (46). Hoist drum (46) to remove it from housing (36). At this moment, the drum section is connected with the outer race of roller bearing (38) and roller bearing (44).

17. Remove floating seal (48) from housing (36) and support (37) respectively.

18. Remove the inner race of roller bearing (44) from drum (46).

19. Remove dummy plugs (52) (2 used) from sprocket (45). Remove bolts (40) (30 used) from sprocket (45).

**CAUTION: Sprocket (45) weight: 210 kg (460 lb)**

20. Screw puller bolts (M27, Pitch 3, L 70 mm ) into the two pulling holes in sprocket (45) and make sprocket (45) separate from drum (46) slowly.

*NOTE: Apply adhesive on the interface of sprocket and drum.*
: 41 mm

21. Install eyebolts (M27, Pitch 3) into the two sling holes in sprocket (45). Hoist sprocket (45) to remove it from drum (46).
    : 41 mm

**CAUTION: Drum (46)+the others weight: 290 kg (640 lb)**

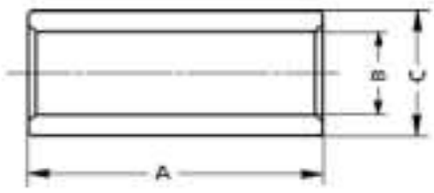
22. Hoist drum (46) to reverse it.

23. Remove socket bolts (47) (18 used) to remove support (37) from drum (46).
    : 10 mm



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**Bushing**

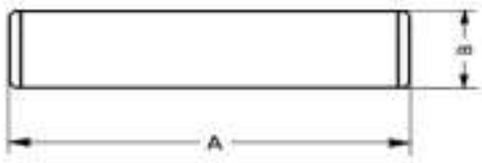



W105-03-07-023

Unit: mm (in)

| | Standard | Allowable Limit | Remedy |
|---|---|---|---|
| A | 222.1 (8.74) | - | Replace |
| B | 59.15 (2.33) | [60.2 (2.37)] | |
| C | 90 (3.54) | 85 (3.35) | |

**Pin**




W105-03-07-020

Unit: mm (in)

| | Standard | Allowable Limit | Remedy |
|---|---|---|---|
| A | 319.5 (12.58) | - | Peplace |
| B | 58.15 (2.29) | [55.2 (2.17)] | |

*NOTE: Values in [ ] are just for reference.*



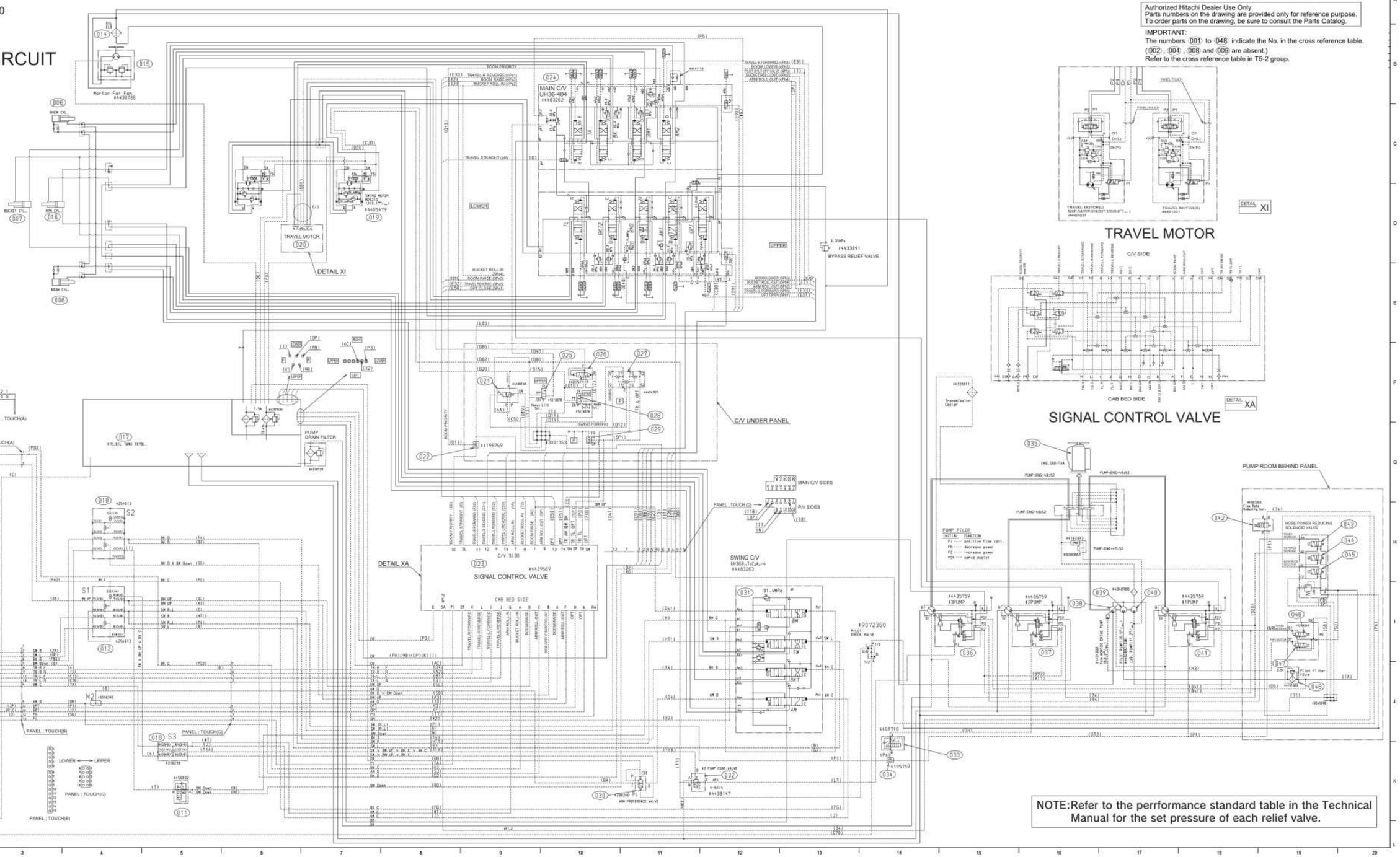
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# EX1200-5C HYDRAULIC CIRCUIT DIAGRAM (BACKHOE)

Authorized Hitachi Dealer Use Only
Parts numbers on the drawing are provided only for reference purpose.
To order parts on the drawing, be sure to consult the Parts Catalog.

IMPORTANT:
The numbers (001) to (048) indicate the No. in the cross reference table.
((002), (004), (008) and (009) are absent.)
Refer to the cross reference table in T5-2 group.





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