PART NO.

HITACHI

Workshop Manual

EX

EX3500-3

Hydraulic Excavator

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

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Remove Front/Swing Pilot Valve

1. Remove right and left lever stand covers.
2. Disconnect electrical harness and all piping from each pilot valve.
3. Remove pilot valve mounting bolts, then remove the pilot valve.

Install Front/Swing Pilot Valve

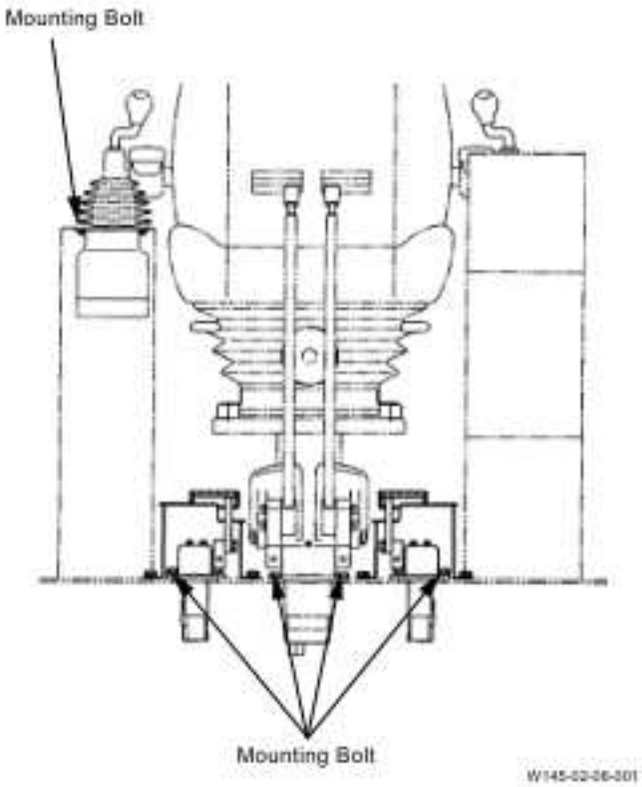
1. Install the pilot valve using mounting bolts.
2. Connect electrical harness and all piping to each pilot valve.
3. Install right and left lever stand covers.

Remove Travel and Bucket Open-Close Pilot Valve

1. Remove the foot cover, travel lever and bucket open-close pedal.
2. Disconnect all piping from each pilot valve.
3. Remove pilot valve mounting bolts, then remove the pilot valve.

Install Travel and Bucket Open-Close Pilot Valve

1. Install the pilot valve using mounting bolts.
2. Connect all piping to each pilot valve.
3. Install the foot cover, travel lever, and bucket open-close pedal.



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REMOVE AND INSTALL SWING BEARING

Removal

CAUTION: Front attachment assembly weight: 80000 kg (176400 lb) [Loader Front] 73000 kg (161000 lb) [Backhoe Front] Counterweight weight: 40500 kg (89300 lb) Left engine bed assembly weight: 15600 kg (34400 lb) Right engine bed assembly weight: 17300 kg (38100 lb)

1. Remove front attachment, counterweight, right and left engine beds.
2. Remove main frame mounting bolts (60 used), then remove the main frame.

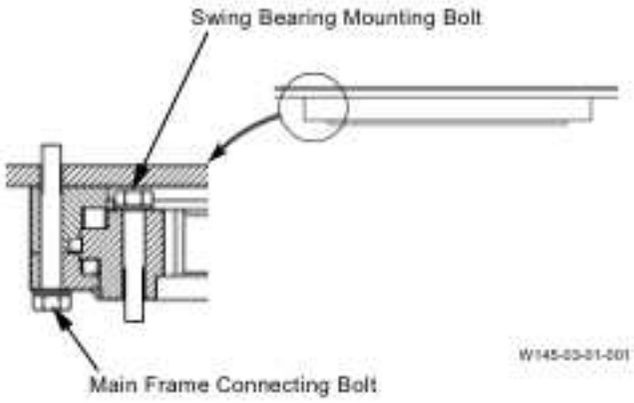
   : 85 mm

3. Remove all grease pipings from swing bearing.

CAUTION: Swing bearing weight: 6800 kg (15000 lb)

4. Remove swing bearing mounting bolts, then remove the swing bearing.

   : 85 mm



Installation

1. With knock-pin positions aligned, mount the swing bearing on the track frame. Install the mouning bolts into the swing bearing.
2. Tighten swing bearing mounting bolts.

   : 85 mm

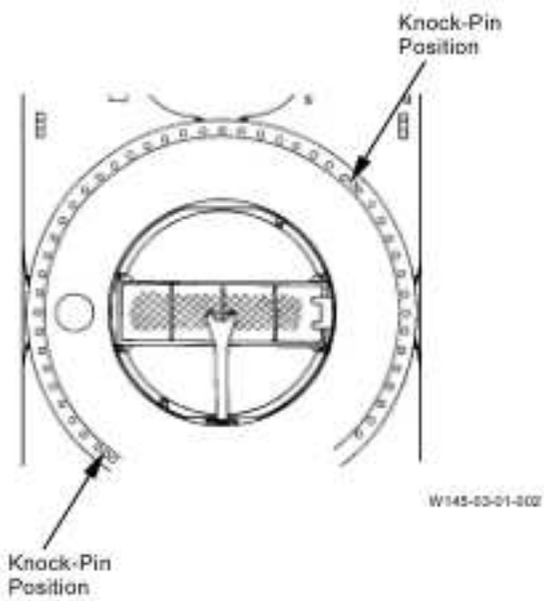
   : 9810 N·m (1000 kgf·m, 7200 lbf·ft)

3. Install all grease pipings to the swing bearing.
4. Install the main frame using mounting bolts.

   : 85 mm

   : 9810 N·m (1000 kgf·m, 7200 lbf·ft)

5. Install the right and left engine beds, counterweight, front attachment.



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DISASSEMBLE AND ASSEMBLE TRAVEL BRAKE VALVE

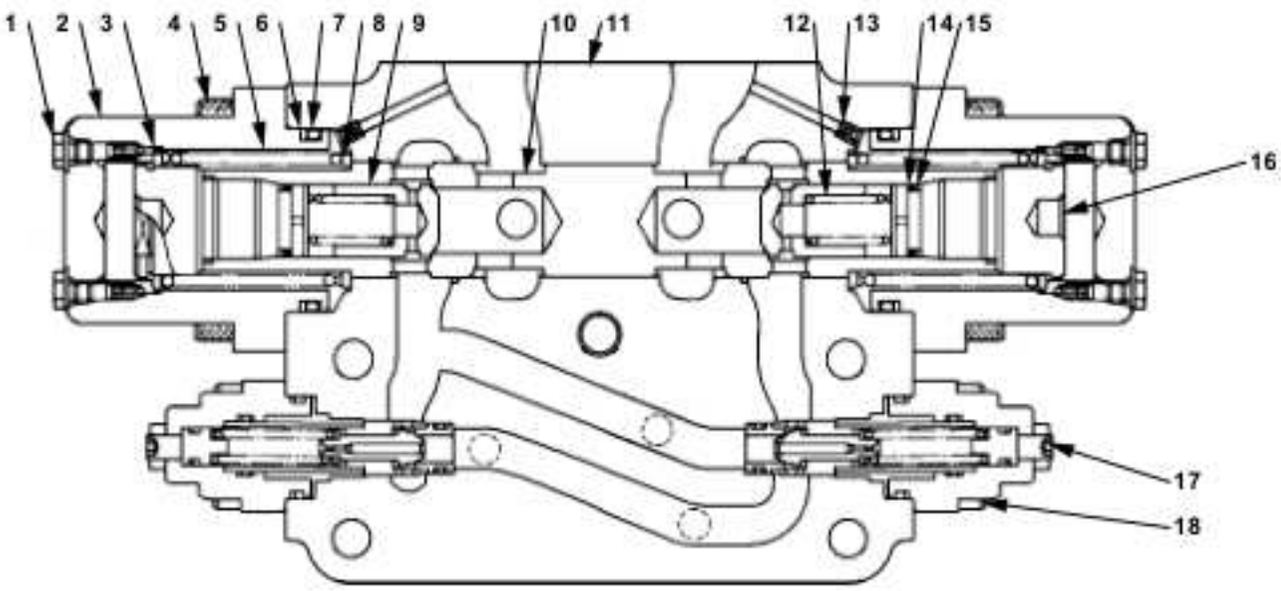
Disassemble Travel Brake Valve

1. Remove socket bolts (4), then remove caps (2). Remove O-ring (7) and backup ring (6) from cap (2).

   ⌐ : 14 mm

2. Remove plug (16), then remove spring seats (3) and springs (5).
3. Remove spring (12) and poppet (9) from spool (10) in housing (11).
4. Remove other plug (16) and spool (10) as an assembly from housing (11). Remove spring seats (8).
5. Clamp plug (16) in a vise. Manually rotate spool (10) using a bar to remove plug (16).
6. Remove socket bolts (18) then, remove relief valves (17).

   ⌐ : 10 mm



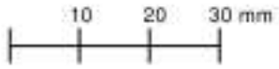
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1 - Plug (4 Used)
2 - Cap (2 Used)
3 - Spring Seat (2 Used)
4 - Socket Bolt
5 - Spring
6 - Backup Ring
7 - O-Ring
8 - Spring Seat
9 - Poppet
10 - Spool
11 - Housing
12 - Spring
13 - Orifice
14 - O-Ring
15 - Backup Ring
16 - Plug
17 - Relief Valve
18 - Socket Bolt

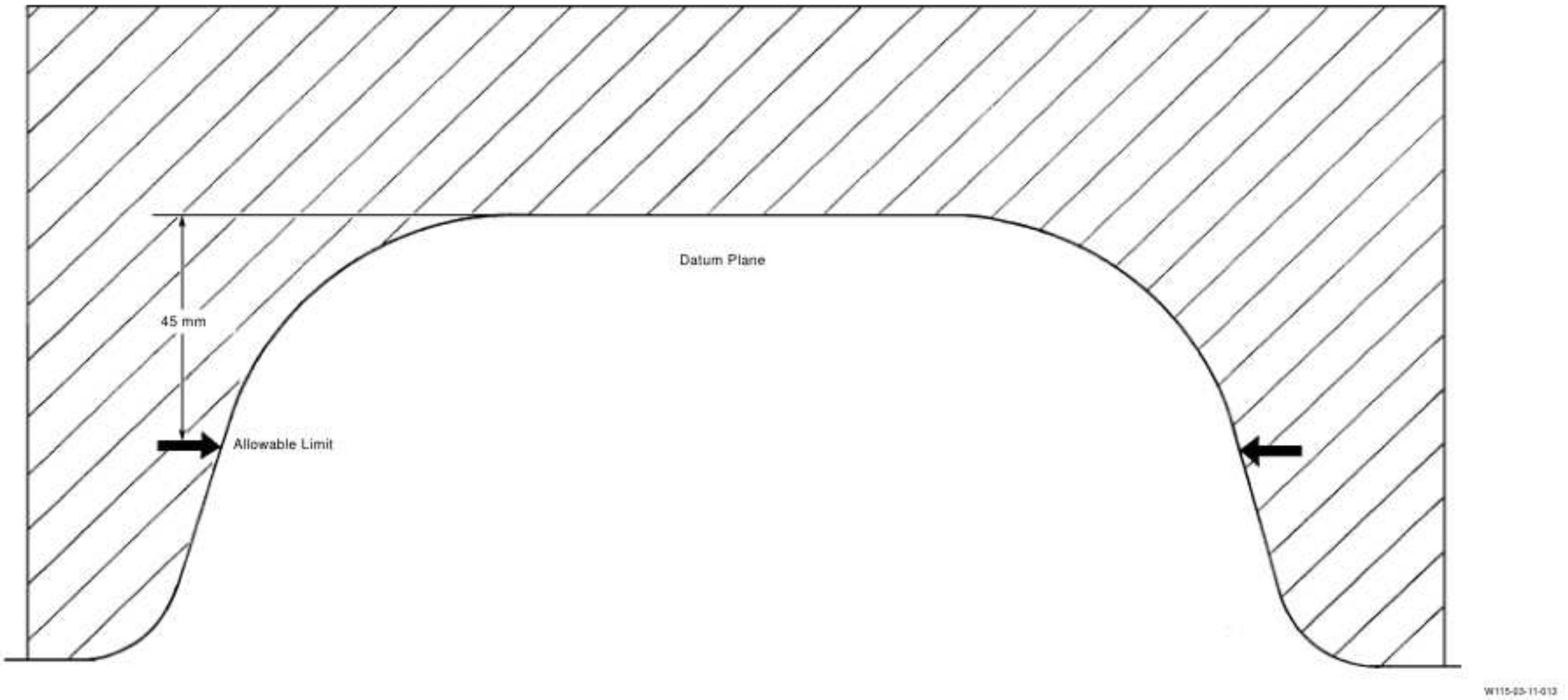
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SUPPLEMENT / Shoe Pattern (B)

EX3500-3



Pattern Scale 1/1



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