

PARTS & SERVICE NEWS

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Page 1 of 31

SUBJECT: MODIFICATION TO REPAIR OIL LEAKAGE FROM THE FLOATING SEAL

PURPOSE: To inform field personnel.

APPLICATION: HM300-1: 1001-1171
HM350-1: 1001-1088
HM400-1: 1001-1222

FAILURE CODE: 2C40AA

DESCRIPTION:

Introduction

When oil leakage occurs from the floating seal of the brake section or from the external oil seal on the HM400-1, HM350-1 and HM300-1, repair the oil leakage following the modification procedure outlined in this Service News.

List of Parts

HM400-1 Rear Axle on the Diff. Lock Spec.

Part No. of Assembly

Part No.	Part Name	Purpose of Part	Qty	Remarks
56B-22-10006 (56B-22-10005)	Rear Axle Assy (Rear Axle Assy)	Replacement	1 (1)	
56B-22-12006 (56B-22-12005)	Final & Brake Assy (Final & Brake Assy)	Replacement	1 (1)	

HM400-1 Rear Axle on the Diff. Lock Spec.

Part No. of Separate Parts

Part No.	Part Name	Purpose of Part	Qty	Remarks
53B-33-11214 (56B-33-11213)	Outer Gear (Outer Gear)	Replacement	2 (2)	Replacing parts <1>
56B-33-11362 (56B-33-11361)	Retainer (Retainer)	Replacement	2 (2)	Replacing parts <2>
56B-22-13460 (566-09-31161)	Oil Seal (Oil Seal)	Replacement	2 (2)	Replacing parts <3> Current parts are usable for other vehicle models.

Part No.	Part Name	Purpose of Part	Qty	Remarks
567-33-00013 (287-33-00010)	Floating Seal Assy (Floating Seal Assy)	Replacement	2 (2)	Replacing parts <3> Usable for other vehicle models.
567-33-00023 (287-33-00090)	Seal Ring Assy (Seal Ring Assy)	Replacement	2 (2)	Component part "A" of the replacing part <4>
567-33-41421 (287-33-11910)	Seal (Seal)	Replacement	4 (4)	Component part "B" of the component part "A"
180-27-00100 (180-27-00100)	O-Ring Set (O-Ring Set)	Replacement	2 (2)	Component part "C" of the replacing part <4>
180-27-11620 (180-27-11620)	O-Ring (O-Ring)	Replacement	4 (4)	Component part "D" of the component part "C"
Delete (56B-33-11491)	(Cover)	Unnecessary	(2)	Canceled parts <5>
Delete (01435-01020)	(Bolt)	Unnecessary	(12)	Canceled parts <6>
04020-00820	Pin		4	Consumable parts to replace when carrying out this modification <7>
07000-15350	O-Ring		2	Consumable parts to replace when carrying out this modification <8>
07043-70211	Plug		4	Consumable parts to replace when carrying out this modification <9>
07000-12016	O-Ring		4	Consumable parts to replace when carrying out this modification <10>
07000-12012	O-Ring		4	Consumable parts to replace when carrying out this modification <11>
07043-70108	Plug		4	Consumable parts to replace when carrying out this modification <12>

HM400-1 Rear Axle on the L.S.D. Spec.**Part No. of Assembly**

Part No.	Part Name	Purpose of Part	Qty	Remarks
56B-22-10052 (56B-22-10051)	Rear Axle Assy (Rear Axle Assy)	Replacement	1 (1)	
56B-22-12052 (56B-22-12051)	Final & Brake Assy (Final & Brake Assy)	Replacement	1 (1)	

HM400-1 Rear Axle on the L.S.D. Spec.**Part No. of Separate Parts**

Part No.	Part Name	Purpose of Part	Qty	Remarks
53B-33-11214 (56B-33-11213)	Outer Gear (Outer Gear)	Replacement	2 (2)	Replacing parts <1>
56B-33-11362 (56B-33-11361)	Retainer (Retainer)	Replacement	2 (2)	Replacing parts <2>
56B-22-13460 (566-09-31161)	Oil Seal (Oil Seal)	Replacement	2 (2)	Replacing parts <3> Current parts are usable for other vehicle models.
567-33-00013 (287-33-00010)	Floating Seal Assy (Floating Seal Assy)	Replacement	2 (2)	Replacing parts <4> Usable for other vehicle models.
567-33-00023 (287-33-00090)	Seal Ring Assy (Seal Ring Assy)	Replacement	2 (2)	Component part "A" of the replacing part <4>
567-33-41421 (287-33-11910)	Seal (Seal)	Replacement	4 (4)	Component part "B" of the component part "A"
180-27-00100 (180-27-00100)	O-Ring Set (O-Ring Set)	Replacement	2 (2)	Component part "C" of the replacing part <4>
180-27-11520 (180-27-11520)	O-Ring (O-Ring)	Replacement	4 (4)	Component part "D" of the component part "C"
Delete (56B-33-11491)	(Cover)	Unnecessary	(2)	Replacing parts <5>
Delete (01435-01020)	(Bolt)	Unnecessary	(12)	Canceled parts <6>
04020-00820	Pin		4	Consumable parts to replace when carrying out this modification <7>

Part No.	Part Name	Purpose of Part	Qty	Remarks
07000-15350	O-Ring		2	Consumable parts to replace when carrying out this modification <8>
07043-70211	Plug		4	Consumable parts to replace when carrying out this modification <9>
07000-12016	O-Ring		4	Consumable parts to replace when carrying out this modification <10>
07000-12012	O-Ring		4	Consumable parts to replace when carrying out this modification <11>
07043-70108	Plug		4	Consumable parts to replace when carrying out this modification <12>

HM400-1 Center Axle on the Diff. Lock Spec.
Part No. of Assembly

Part No.	Part Name	Purpose of Part	Qty	Remarks
56B-23-10006 (56B-23-10005)	Center Axle Assy (Center Axle Assy)	Replacement	1 (1)	
56B-23-12002 (56B-22-12001)	Final & Brake Assy (Final & Brake Assy)	Replacement	1 (1)	

HM400-1 Center Axle on the Diff. Lock Spec.
Part No. of Separate Parts

Part No.	Part Name	Purpose of Part	Qty	Remarks
53B-33-11211 (56B-33-11213)	Outer Gear (Outer Gear)	Replacement	2 (2)	Replacing parts <1>
56B-33-11362 (56B-33-11361)	Retainer (Retainer)	Replacement	2 (2)	Replacing parts <2>
56B-22-13460 (56B-09-31161)	Oil Seal (Oil Seal)	Replacement	2 (2)	Replacing parts <3> Current parts are usable for other vehicle models

Part No.	Part Name	Purpose of Part	Qty	Remarks
567-33-00013 (287-33-00010)	Floating Seal Assy (Floating Seal Assy)	Replacement	2 (2)	Replacing parts <4> Usable for other vehicle models.
567-33-00023 (287-33-00090)	Seal Ring Assy (Seal Ring Assy)	Replacement	2 (2)	Component part "A" of the replacing part <4>
567-33-41421 (287-33-11910)	Seal (Seal)	Replacement	4 (4)	Component part "B" of the component part "A"
180-27-00100 (180-27-00100)	O-Ring Set (O-Ring Set)	Replacement	2 (2)	Component part "C" of the replacing part <4>
180-27-11620 (180-27-11620)	O-Ring (O-Ring)	Replacement	4 (4)	Component part "D" of the component part "C"
Delete (56B-33-11491)	(Cover)	Unnecessary	(2)	Canceled parts <5>
Delete (01435-01020)	(Bolt)	Unnecessary	(12)	Canceled parts <6>
04020-00820	Pin		4	Consumable parts to replace when carrying out this modification <7>
07000-15350	O-Ring		2	Consumable parts to replace when carrying out this modification <8>
07043-70211	Plug		4	Consumable parts to replace when carrying out this modification <9>
07000-12016	O-Ring		4	Consumable parts to replace when carrying out this modification <10>
07000-12012	O-Ring		4	Consumable parts to replace when carrying out this modification <11>
07043-70108	Plug		4	Consumable parts to replace when carrying out this modification <12>

HM400-1 Center Axle on the L.S.D. Spec.
Part No. of Assembly

Part No.	Part Name	Purpose of Part	Qty	Remarks
56B-23-10052 (56B-23-10051)	Center Axle Assy (Center Axle Assy)	Replacement	1 (1)	
56B-23-12051 (56B-23-12050)	Final & Brake Assy (Final & Brake Assy)	Replacement	1 (1)	

HM400-1 Center Axle on the L.S.D. Spec.
Part No. of Separate Parts

Part No.	Part Name	Purpose of Part	Qty	Remarks
56B-33-11214 (56B-33-11213)	Outer Gear (Outer Gear)	Replacement	2 (2)	Replacing parts <1>
56B-33-11362 (56B-33-11361)	Retainer (Retainer)	Replacement	2 (2)	Replacing parts <2>
56B-22-13460 (566-09-31161)	Oil Seal (Oil Seal)	Replacement	2 (2)	Replacing parts <3> Current parts are usable for other vehicle models
567-33-00013 (287-33-00010)	Floating Seal Assy (Floating Seal Assy)	Replacement	2 (2)	Replacing parts <4> Usable for other vehicle models.
567-33-00023 (287-33-00090)	Seal Ring Assy (Seal Ring Assy)	Replacement	2 (2)	Component part "A" of the replacing part <4>
567-33-41421 (287-33-11910)	Seal (Seal)	Replacement	4 (4)	Component part "B" of the component part "A"
180-27-00100 (180-27-00100)	O-Ring Set (O-Ring Set)	Replacement	2 (2)	Component part "C" of the replacing part <4>
180-27-11520 (180-27-11520)	O-Ring (O-Ring)	Replacement	4 (4)	Component part "D" of the component part "C"
Delete (56B-33-11491)	(Cover)	Unnecessary	(2)	Canceled parts <5>
Delete (01435-01020)	(Bolt)	Unnecessary	(12)	Canceled parts <6>
04020-00820	Pin		4	Consumable parts to replace when carrying out this modification <7>

Part No.	Part Name	Purpose of Part	Qty	Remarks
07000-15350	O-Ring		2	Consumable parts to replace when carrying out this modification <8>
07043-70211	Plug		4	Consumable parts to replace when carrying out this modification <9>
07000-12016	O-Ring		4	Consumable parts to replace when carrying out this modification <10>
07000-12012	O-Ring		4	Consumable parts to replace when carrying out this modification <11>
07043-70108	Plug		4	Consumable parts to replace when carrying out this modification <12>

HM400-1 Front Axle on the L.S.D. Spec. and Diff. Lock Spec.
Part No. of Assembly

Part No.	Part Name	Purpose of Part	Qty	Remarks
56B-27-12006 (56B-27-12005)	Final & Brake Assy (Final & Brake Assy)	Replacement	1 (1)	

HM400-1 Front Axle on the L.S.D. Spec. and Diff. Lock Spec.
Part No. of Separate Parts

Part No.	Part Name	Purpose of Part	Qty	Remarks
56B-33-11214 (56B-33-11213)	Outer Gear (Outer Gear)	Replacement	2 (2)	Replacing parts <1>
56B-33-11361 (56B-33-11351)	Retainer (Retainer)	Replacement	2 (2)	Replacing parts <2>
56B-22-13460 (566-09-31161)	Oil Seal (Oil Seal)	Replacement	2 (2)	Replacing parts <3> Current parts are usable for other vehicle models
567-33-00013 (287-33-00010)	Floating Seal Assy (Floating Seal Assy)	Replacement	2 (2)	Replacing parts <4> Usable for other vehicle models.
567-33-00023 (287-33-00090)	Seal Ring Assy (Seal Ring Assy)	Replacement	2 (2)	Component part "A" of the replacing part <4>

Part No.	Part Name	Purpose of Part	Qty	Remarks
567-33-41421 (287-33-11910)	Seal (Seal)	Replacement	4 (4)	Component part "B" of the component part "A"
180-27-00100 (180-27-00100)	O-Ring Set (O-Ring Set)	Replacement	2 (2)	Component part "C" of the replacing part <4>
180-27-11620 (180-27-11620)	O-Ring (O-Ring)	Replacement	4 (4)	Component part "D" of the component part "C"
Delete (56B-33-11491)	(Cover)	Unnecessary	(2)	Canceled parts <5>
Delete (01435-01020)	(Bolt)	Unnecessary	(12)	Canceled parts <6>
04020-00820	Pin		4	Consumable parts to replace when carrying out this modification <7>
07000-15350	O-Ring		2	Consumable parts to replace when carrying out this modification <8>
07043-70211	Plug		4	Consumable parts to replace when carrying out this modification <9>
07000-12016	O-Ring		4	Consumable parts to replace when carrying out this modification <10>
07000-12012	O-Ring		4	Consumable parts to replace when carrying out this modification <11>
07043-70108	Plug		4	Consumable parts to replace when carrying out this modification <12>

HM350-1 Center Axle on the Diff. Lock Spec.
Part No. of Assembly

Part No.	Part Name	Purpose of Part	Qty	Remarks
56C-23-10004 (56C-23-10003)	Center Axle Assy (Center Axle Assy)	Replacement	1 (1)	
56C-23-12004 (56C-23-12003)	Final & Brake Assy (Final & Brake Assy)	Replacement	1 (1)	

HM350-1 Center Axle on the Diff. Lock Spec.**Part No. of Separate Parts**

Part No.	Part Name	Purpose of Part	Qty	Remarks
56C-33-11212 (56C-33-11211)	Outer Gear (Outer Gear)	Replacement	2 (2)	Replacing parts <1>
56B-33-11362 (56B-33-11361)	Retainer (Retainer)	Replacement	2 (2)	Replacing parts <2>
56B-22-13460 (566-09-31161)	Oil Seal (Oil Seal)	Replacement	2 (2)	Replacing parts <3> Current parts are usable for other vehicle models
567-33-00013 (287-33-00010)	Floating Seal Assy (Floating Seal Assy)	Replacement	2 (2)	Replacing parts <4> Usable for other vehicle models.
567-33-00023 (287-33-00090)	Seal Ring Assy (Seal Ring Assy)	Replacement	2 (2)	Component part "A" of the replacing part <4>
567-33-41421 (287-33-11910)	Seal (Seal)	Replacement	4 (4)	Component part "B" of the component part "A"
180-27-00100 (180-27-00100)	O-Ring Set (O-Ring Set)	Replacement	2 (2)	Component part "C" of the replacing part <4>
180-27-11620 (180-27-11620)	O-Ring (O-Ring)	Replacement	4 (4)	Component part "D" of the component part "C"
Delete (56B-33-11491)	(Cover)	Unnecessary	(2)	Canceled parts <5>
Delete (01435-01020)	(Bolt)	Unnecessary	(12)	Canceled parts <6>
04020-00320	Pin		4	Consumable parts to replace when carrying out this modification <7>
07000-15350	O-Ring		2	Consumable parts to replace when carrying out this modification <8>
07043-70211	Plug		4	Consumable parts to replace when carrying out this modification <9>
07000-12016	O-Ring		4	Consumable parts to replace when carrying out this modification <10>

Part No.	Part Name	Purpose of Part	Qty	Remarks
07000-12012	O-Ring		4	Consumable parts to replace when carrying out this modification <11>
07043-70108	Plug		4	Consumable parts to replace when carrying out this modification <12>

HM350-1 Center Axle on the L.S.D. Spec.**Part No. of Assembly**

Part No.	Part Name	Purpose of Part	Qty	Remarks
56C-23-10052 (56C-23-10051)	Center Axle Assy (Center Axle Assy)	Replacement	1 (1)	
56C-23-12052 (56C-22-12051)	Final & Brake Assy (Final & Brake Assy)	Replacement	1 (1)	

HM350-1 Center Axle on the L.S.D. Spec.**Part No. of Separate Parts**

Part No.	Part Name	Purpose of Part	Qty	Remarks
53C-33-11212 (56C-33-11211)	Outer Gear (Outer Gear)	Replacement	2 (2)	Replacing parts <1>
56B-33-11362 (56B-33-11361)	Retainer (Retainer)	Replacement	2 (2)	Replacing parts <2>
56B-22-13460 (566-09-31161)	Oil Seal (Oil Seal)	Replacement	2 (2)	Replacing parts <3> Current parts are usable for other vehicle models
567-33-00013 (287-33-00010)	Floating Seal Assy (Seal Assy)	Replacement	2 (2)	Replacing parts <4> Usable for other vehicle models.
567-33-00023 (287-33-00090)	Seal Ring Assy (Seal Ring Assy)	Replacement	2 (2)	Component part "A" of the replacing part <4>
567-33-41421 (287-33-11910)	Seal (Seal)	Replacement	4 (4)	Component part "B" of the component part "A"
180-27-00100 (180-27-00100)	O-Ring Set (O-Ring Set)	Replacement	2 (2)	Component part "C" of the replacing part <4>
180-27-11620 (180-27-11620)	O-Ring (O-Ring)	Replacement	4 (4)	Component part "D" of the component part "C"

Part No.	Part Name	Purpose of Part	Qty	Remarks
Delete (56B-33-11491)	(Cover)	Unnecessary	(2)	Canceled parts <5>
Delete (01435-01020)	(Bolt)	Unnecessary	(12)	Canceled parts <6>
04020-00820	Pin		4	Consumable parts to replace when carrying out this modification <7>
07000-15350	O-Ring		2	Consumable parts to replace when carrying out this modification <8>
07043-70211	Plug		4	Consumable parts to replace when carrying out this modification <9>
07000-12016	O-Ring		4	Consumable parts to replace when carrying out this modification <10>
07000-12012	O-Ring		4	Consumable parts to replace when carrying out this modification <11>
07043-70108	Plug		4	Consumable parts to replace when carrying out this modification <12>

HM350-1 Center Axle on the Cold Weather Spec.

Part No. of Assembly

Part No.	Part Name	Purpose of Part	Qty	Remarks
56C-23-19002 (56C-23-19001)	Center Axle Assy (Center Axle Assy)	Replacement	1 (1)	
56C-23-12902 (56C-23-12901)	Final & Brake Assy (Final & Brake Assy)	Replacement	1 (1)	

HM350-1 Center Axle on the Cold Weather Spec.

Part No. of Separate Parts

Part No.	Part Name	Purpose of Part	Qty	Remarks
53C-33-11212 (56C-33-11211)	Outer Gear (Outer Gear)	Replacement	2 (2)	Replacing parts <1>

Part No.	Part Name	Purpose of Part	Qty	Remarks
56B-33-11362 (56B-33-11361)	Retainer (Retainer)	Replacement	2 (2)	Replacing parts <2>
56B-22-13460 (41E-33-11660)	Oil Seal (Oil Seal)	Replacement	2 (2)	Replacing parts <3> Current parts are usable for other vehicle models
567-33-00013 (287-33-00010)	Floating Seal Assy (Floating Seal Assy)	Replacement	2 (2)	Replacing parts <4> Usable for other vehicle models.
567-33-00023 (287-33-00090)	Seal Ring Assy (Seal Ring Assy)	Replacement	2 (2)	Component part "A" of the replacing part <4>
567-33-41421 (287-33-11910)	Seal (Seal)	Replacement	4 (4)	Component part "B" of the component part "A"
180-27-00100 (180-27-00100)	O-Ring Set (O-Ring Set)	Replacement	2 (2)	Component part "C" of the replacing part <4>
180-27-11620 (180-27-11620)	O-Ring (O-Ring)	Replacement	4 (4)	Component part "D" of the component part "C"
Delete (56B-33-11491)	(Cover)	Unnecessary	(2)	Canceled parts <5>
Delete (01435-01020)	(Bolt)	Unnecessary	(12)	Canceled parts <6>
04020-00820	Pin		4	Consumable parts to replace when carrying out this modification <7>
07000-55350	O-Ring		2	Consumable parts to replace when carrying out this modification <13>
07043-70211	Plug		4	Consumable parts to replace when carrying out this modification <9>
07000-52016	O-Ring		4	Consumable parts to replace when carrying out this modification <14>
07000-52012	O-Ring		4	Consumable parts to replace when carrying out this modification <15>

Part No.	Part Name	Purpose of Part	Qty	Remarks
07043-70108	Plug		4	Consumable parts to replace when carrying out this modification <12>

HM350-1 Front Axle on the L.S.D. Spec. and Diff. Lock Spec.**Part No. of Assembly**

Part No.	Part Name	Purpose of Part	Qty	Remarks
56C-27-12004 (56B-27-12003)	Final & Brake Assy (Final & Brake Assy)	Replacement	1 (1)	

HM350-1 Front Axle on the L.S.D. Spec. and Diff. Lock Spec.**Part No. of Separate Parts**

Part No.	Part Name	Purpose of Part	Qty	Remarks
53B-33-11214 (56B-33-11213)	Outer Gear (Outer Gear)	Replacement	2 (2)	Replacing parts <1>
56B-33-11362 (56B-33-11361)	Retainer (Retainer)	Replacement	2 (2)	Replacing parts <2>
56B-22-13460 (566-09-31161)	Oil Seal (Oil Seal)	Replacement	2 (2)	Replacing parts <3> Current parts are usable for other vehicle models
567-33-00013 (287-33-00010)	Floating Seal Assy (Floating Seal Assy)	Replacement	2 (2)	Replacing parts <4> Usable for other vehicle models.
567-33-00023 (287-33-00090)	Seal Ring Assy (Seal Ring Assy)	Replacement	2 (2)	Component part "A" of the replacing part <4>
567-33-41421 (287-33-11910)	Seal (Seal)	Replacement	4 (4)	Component part "B" of the component part "A"
180-27-00100 (180-27-00100)	O-Ring Set (O-Ring Set)	Replacement	2 (2)	Component part "C" of the replacing part <4>
180-27-11620 (180-27-11620)	O-Ring (O-Ring)	Replacement	4 (4)	Component part "D" of the component part "C"
Delete (56B-33-11491)	(Cover)	Unnecessary	(2)	Canceled parts <5>
Delete (01435-01020)	(Bolt)	Unnecessary	(12)	Canceled parts <6>

Part No.	Part Name	Purpose of Part	Qty	Remarks
04020-00820	Pin		4	Consumable parts to replace when carrying out this modification <7>
07000-15350	O-Ring		2	Consumable parts to replace when carrying out this modification <8>
07043-70211	Plug		4	Consumable parts to replace when carrying out this modification <9>
07000-12016	O-Ring		4	Consumable parts to replace when carrying out this modification <10>
07000-12012	O-Ring		4	Consumable parts to replace when carrying out this modification <11>
07043-70108	Plug		4	Consumable parts to replace when carrying out this modification <12>

**HM350-1 Front Axle on the Cold Weather Spec.
Part No. of Assembly**

Part No.	Part Name	Purpose of Part	Qty	Remarks
56C-27-12902 (56B-27-12901)	Final & Brake Assy (Final & Brake Assy)	Replacement	1 (1)	

**HM350-1 Front Axle on the Cold Weather Spec.
Part No. of Separate Parts**

Part No.	Part Name	Purpose of Part	Qty	Remarks
56B-33-11214 (56B-33-11213)	Outer Gear (Outer Gear)	Replacement	2 (2)	Replacing parts <1>
56B-33-11362 (56B-33-11361)	Retainer (Retainer)	Replacement	2 (2)	Replacing parts <2>
56B-22-13460 (41E-33-11660)	Oil Seal (Oil Seal)	Replacement	2 (2)	Replacing parts <3> Current parts are usable for other vehicle models

Part No.	Part Name	Purpose of Part	Qty	Remarks
567-33-00013 (287-33-00010)	Floating Seal Assy (Floating Seal Assy)	Replacement	2 (2)	Replacing parts <4> Usable for other vehicle models.
567-33-00023 (287-33-00090)	Seal Ring Assy (Seal Ring Assy)	Replacement	2 (2)	Component part "A" of the replacing part <4>
567-33-41421 (287-33-11910)	Seal (Seal)	Replacement	4 (4)	Component part "B" of the component part "A"
180-27-00100 (180-27-00100)	O-Ring Set (O-Ring Set)	Replacement	2 (2)	Component part "C" of the replacing part <4>
180-27-11620 (180-27-11620)	O-Ring (O-Ring)	Replacement	4 (4)	Component part "D" of the component part "C"
Delete (56B-33-11491)	(Cover)	Unnecessary	(2)	Canceled parts <5>
Delete (01435-01020)	(Bolt)	Unnecessary	(12)	Canceled parts <6>
04020-00820	Pin		4	Consumable parts to replace when carrying out this modification <7>
07000-55350	O-Ring		2	Consumable parts to replace when carrying out this modification <13>
07043-70211	Plug		4	Consumable parts to replace when carrying out this modification <9>
07000-52016	O-Ring		4	Consumable parts to replace when carrying out this modification <14>
07000-52012	O-Ring		4	Consumable parts to replace when carrying out this modification <15>
07043-70108	Plug		4	Consumable parts to replace when carrying out this modification <12>

HM300-1 Center Axle**Part No. of Assembly**

Part No.	Part Name	Purpose of Part	Qty	Remarks
56D-23-10004 (56D-23-10003)	Center Axle Assy (Center Axle Assy)	Replacement	1 (1)	
56D-23-12004 (56D-23-12003)	Final & Brake Assy (Final & Brake Assy)	Replacement	1 (1)	

HM300-1 Center Axle**Part No. of Separate Parts**

Part No.	Part Name	Purpose of Part	Qty	Remarks
56D-23-13460 (421-33-21811)	Oil Seal (Oil Seal)	Replacement	2 (2)	Replacing parts <16> Current parts are usable for other vehicle models
56D-33-00030	Floating Seal Assy	Replacement	2	Replacing parts <3> Spare parts number setting
56D-33-00040	Seal Ring Assy	Replacement	2	Component part "E" of the replacing part <17>
56D-33-11810 (56D-33-11310)	Seal (Seal)	Replacement	4 (4)	Component part "F" of the component part "E"
195-27-00150 (195-27-00150)	O-Ring Set (O-Ring Set)	Replacement	2 (2)	Component part "G" of the replacing part <17>
195-27-12710 (195-27-12710)	O-Ring (O-Ring)	Replacement	4 (4)	Component part "H" of the component part "G"
56D-23-12632 (56D-23-12631)	Retainer (Retainer)	Replacement	2 (2)	Replacing parts <18>

HM300-1 Front Axle**Part No. of Assembly**

Part No.	Part Name	Purpose of Part	Qty	Remarks
56D-27-12004 (56D-27-12003)	Final & Brake Assy (Final & Brake Assy)	Replacement	1 (1)	
56D-23-13460 (421-33-21811)	Oil Seal (Oil Seal)	Replacement	2 (2)	Replacing parts <16> Current parts are usable for other vehicle models.

Part No.	Part Name	Purpose of Part	Qty	Remarks
56D-33-00030	Floating Seal Assy	Replacement	2	Replacing parts <3> Spare parts number setting
56D-33-00040	Seal Ring Assy	Replacement	2	Component part "E" of the replacing part <17>
56D-33-11810 (56D-33-11310)	Seal (Seal)	Replacement	4 (4)	Component part "F" of the component part "E"
195-27-00150 (195-27-00150)	O-Ring Set (O-Ring Set)	Replacement	2 (2)	Component part "G" of the replacing part <17>
195-27-12710 (195-27-12710)	O-Ring (O-Ring)	Replacement	4 (4)	Component part "H" of the component part "G"
56D-23-12632 (56D-23-12631)	Retainer (Retainer)	Replacement	2 (2)	Replacing parts <18>

<Details of the standard man-hours estimated by the factory>

Actual man-hour (per an axle): 16H (8H x 2 persons)

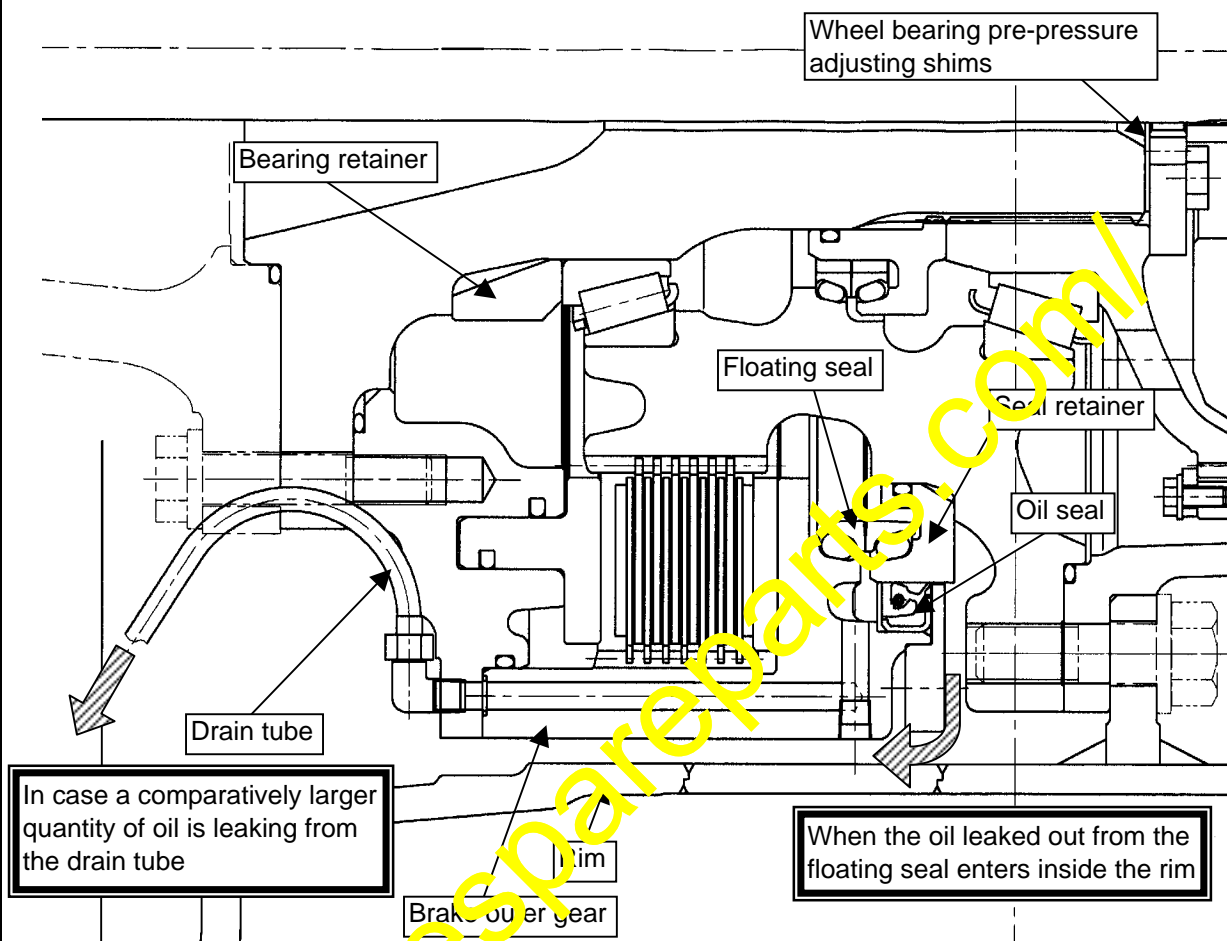
Man-hour of the additional works (car washing, removal/installation of the tires, etc.):
32H (8H x 2 persons x 2 days)

Vehicle model	In case all the axles are repaired				Man-hour per an axle
	Number of axles	Actual man-hour	Man-hour of the additional works	Total	
HM400	3	48	32	80	14
HM350	2	32	32	64	16
HM300	2	32	32	64	16

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1. Applicable failure condition

In case a comparatively larger quantity of oil is leaking from the drain tube of the floating seal or when the oil leaked out from the floating seal enters inside the rim through the external oil seal, the modification introduced in this Service News will become applicable.



(Although this drawing shows the HM400-1, the structure of this section is the same with HM350-1 and HM300-1 also.)

Fig. 1

2. Details of the modification

Common modifications with the HM400-1, HM350-1 and HM300-1:

- (1) The floating seal is replaced with the improved floating seal with increased seizure resistance (thermal spraying treated seal).
- (2) The oil seal is replaced with the improved oil seal with increased wear resistance against mud and sand (with side lips).

Modifications applicable to the HM400-1 and HM350-1:

- (1) Attendant upon the change of the oil seal, replace the brake outer gear.
- (2) Attendant upon the change of the oil seal, replace the seal retainer.

Modification contents applicable to the HM300-1:

- (1) The bearing retainer is replaced due to the change of the oil seal.
- (2) The thickness of the wheel bearing pre-pressure adjusting shims is readjusted due to the replacement of the bearing retainer.

3. Details of the modifications

- 3-1. HM400-1 L.S.D. spec. vehicles, HM400-1 DIFF. LOCK spec. vehicles
HM350-1 L.S.D. spec. vehicles, HM350-1 DIFF. LOCK spec. vehicles

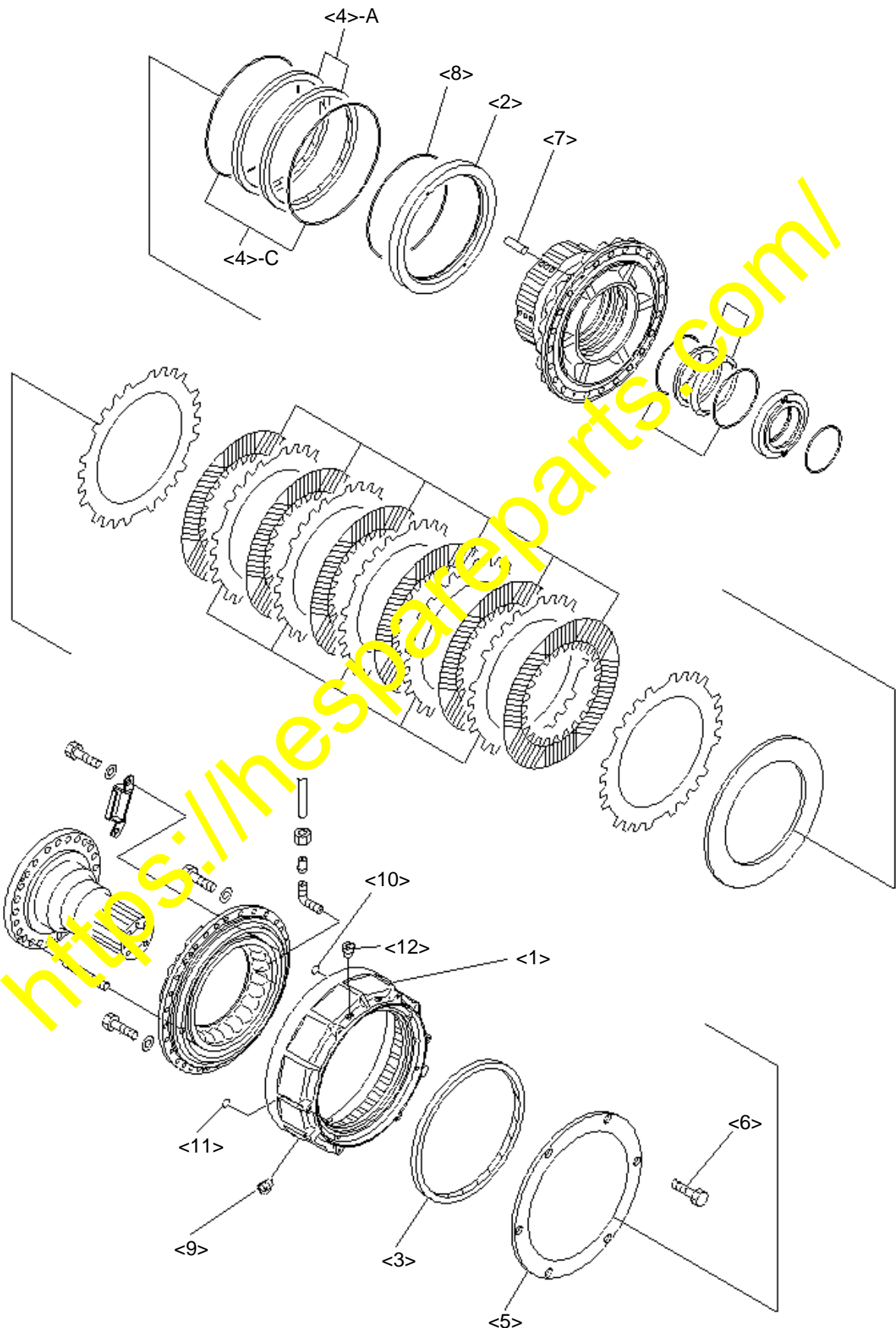


Fig. 2

3-1-1. Work procedure

- (1) According to the Shop Manual, remove the brake outer gear (replacing parts <1>) and the seal retainer (replacing parts <2>) from the front final drive · brake ass'y, center final drive · brake ass'y and rear final drive · brake ass'y.
- (2) Install the plugs (consumable parts <9> and <12> to change when making this modification), O-rings (consumable parts <10> and <11> to change when making this modification) and the improved new floating seal (replacing parts <4>) to the replacing new brake outer gear.

When installing the floating seal, refer to the Section "**Precautions when installing the floating seal**".

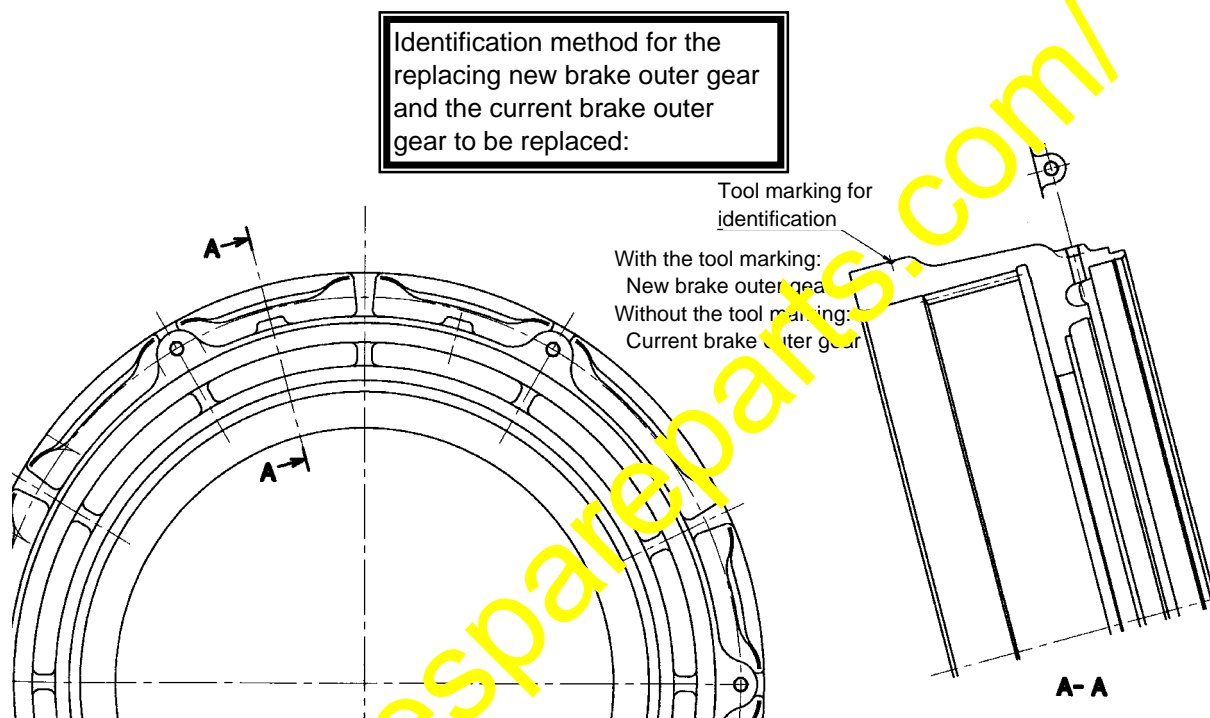


Fig. 3

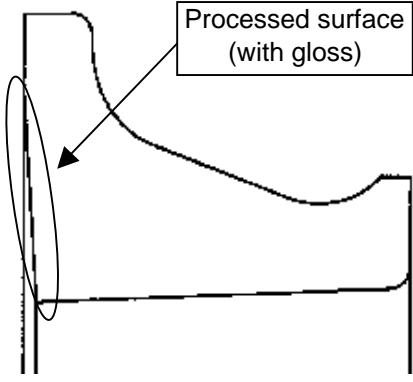
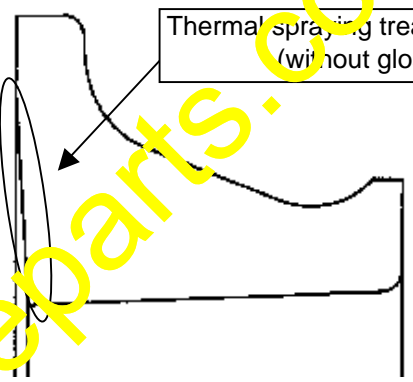
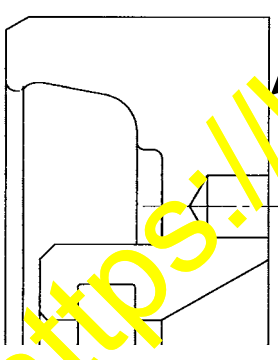
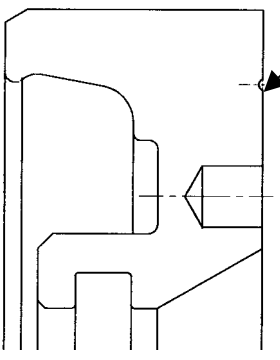
Table. 1 Identification method for the replacing new floating seal and the current floating seal to be replaced:

Current floating seal	Improved new floating seal
Part No. 267-33-11910 <p>Processed surface (with gloss)</p>	Part No. 567-33-41421 <p>Thermal spraying treated surface (without gloss)</p>

- (3) Replace the seal retainer lock pin (consumable parts <7> to change when making this modification) for the reusing wheel hub.
- (4) Install the O-ring (consumable parts <8> to change when making this modification) and the improved new floating seal (replacing parts <4>) to the replacing new seal retainer.

When installing the floating seal, refer to the Section **"Precautions when installing the floating seal"**.

Table. 2 Identification method for the replacing new floating seal and the current floating seal and for the replacing new retainer and the current retainer to be replaced:

Current parts	Improved new parts
Part No. 287-33-11910  <p>Processed surface (with gloss)</p>	Part No. 567-33-41421  <p>Thermal spraying treated surface (without gloss)</p>
Part No. 56B-33-11361  <p>Without the tool marking for identification</p>	Part No. 56B-33-11362  <p>With the tool marking for identification</p>

★ Precautions when installing the floating seal

- When installing a new floating seal, wash the surface of the O-ring using alcohol to remove the white powder remaining on the O-ring surface completely.
- Before installing the floating seal, degrease the contact surface to the O-ring of the outer gear, wheel hub and retainer completely.
- When installing the O-ring to the floating seal, be careful not to twist the O-ring.

IMPORTANT

- When installing the floating seal set (floating seal + O-ring) to the outer gear, to the wheel hub and to the retainer, use a special tool of a type which is designed to push the O-ring.
(Refer to the Shop Manual regarding the special tool.)

- When installing the floating seal set to the outer gear, to the wheel hub and to the retainer, if you apply alcohol onto the contact surface to the O-ring of the outer gear, wheel hub and retainer, the O-rings will slide more smoothly and the installation work will become easier.
- Apply engine oil to the seal surface "A". Also, check that dust is not adhering to the seal surface.

IMPORTANT

- Measure the height "a" of the seal against the outer gear, wheel hub and retainer at 4 places around the circumference and make sure that the dimensional difference is within 1 mm.

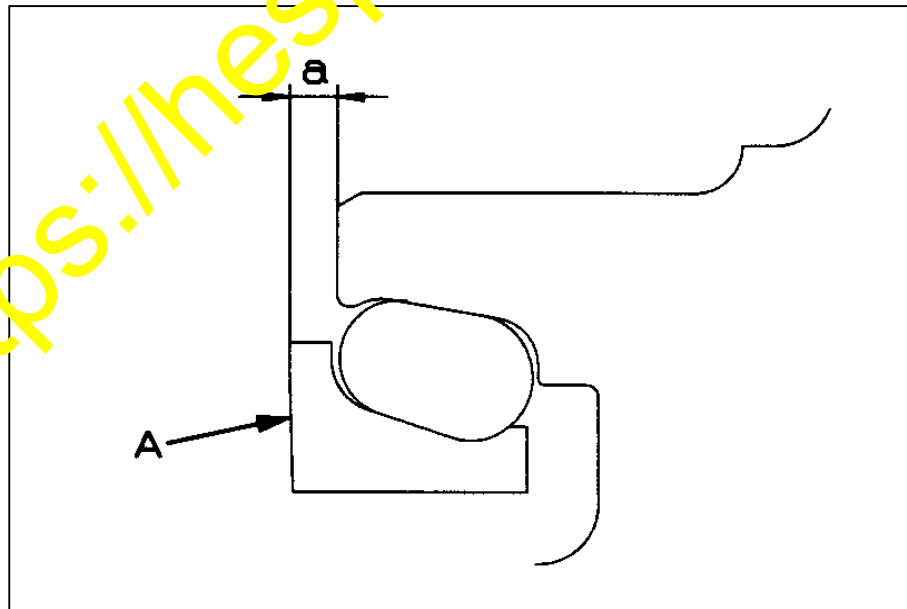
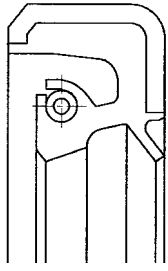
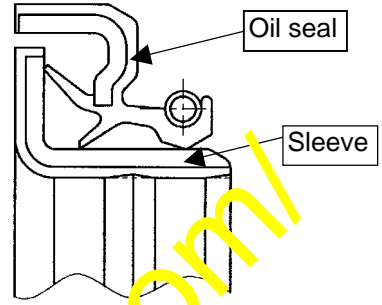


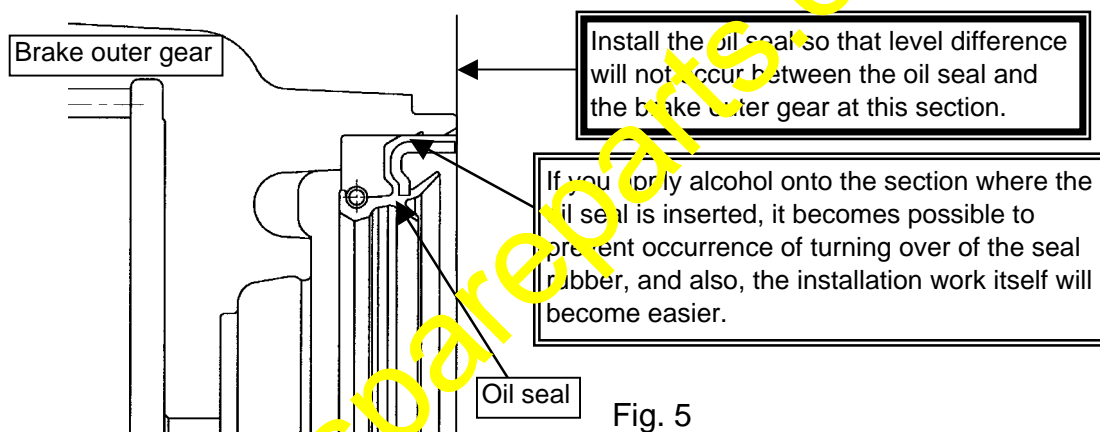
Fig. 4

- (5) Install the improved new oil seal (replacing parts <3>) to the brake outer gear for the improved seal and to the improved new seal retainer.

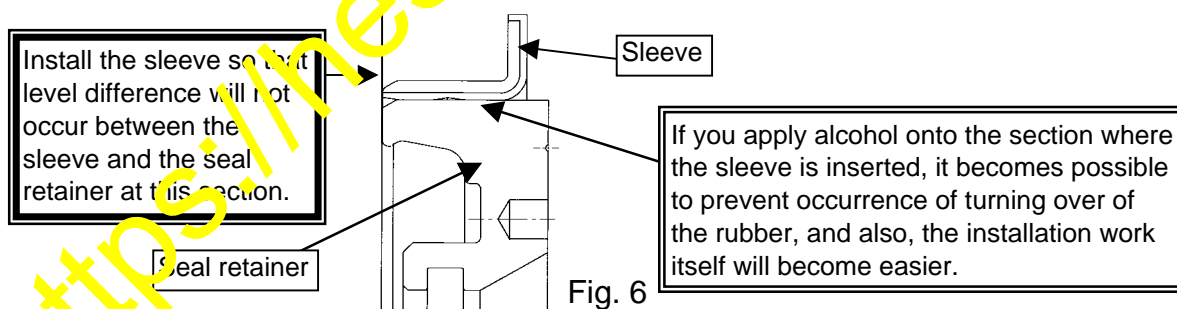
Table. 3

Current oil seal	Improved oil seal
Part No. 566-09-31161 (standard spec. oil seal) 41E-33-11660 (cold weather area spec. oil seal)	Part No. 56B-22-13460
	

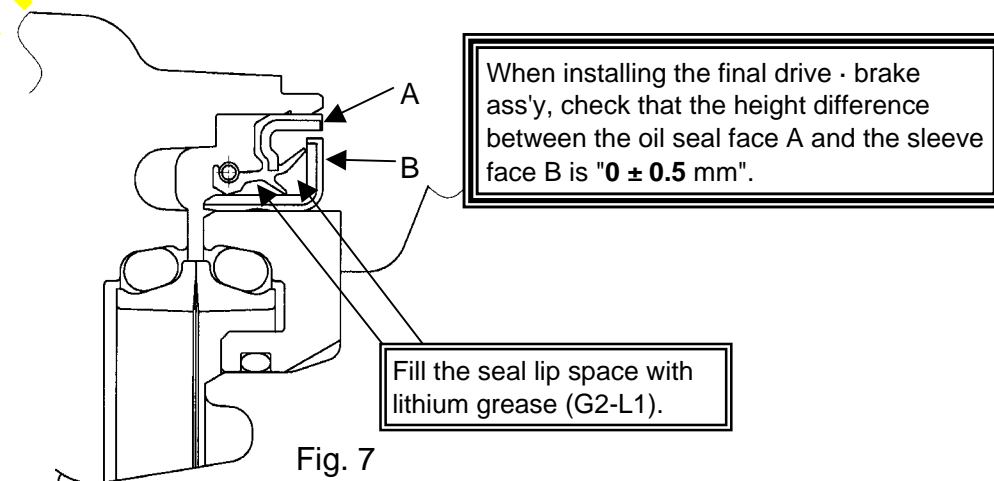
<1> How to install the oil seal to the brake outer gear



<2> How to install the sleeve to the seal retainer



<3> Other precautions when carrying out the installation work



(6) Install the final drive · brake ass'y according to the Shop Manual.

· **Precautions when carrying out the installation work:**

When carrying out the reinstallation work of the final drive · brake ass'y, do not use:

Cover 56B-33-11491 (cancelled parts <5>) and

Bolt 01435-01020 (cancelled parts <6>).

(7) Fill the axle with oil to the specified oil level.

Use the exclusive axle oil AXO-80.

(8) Fill the transmission with oil to the specified oil level.

(9) Bleed air from the brake line for each wheel.

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3-2. HM300-1

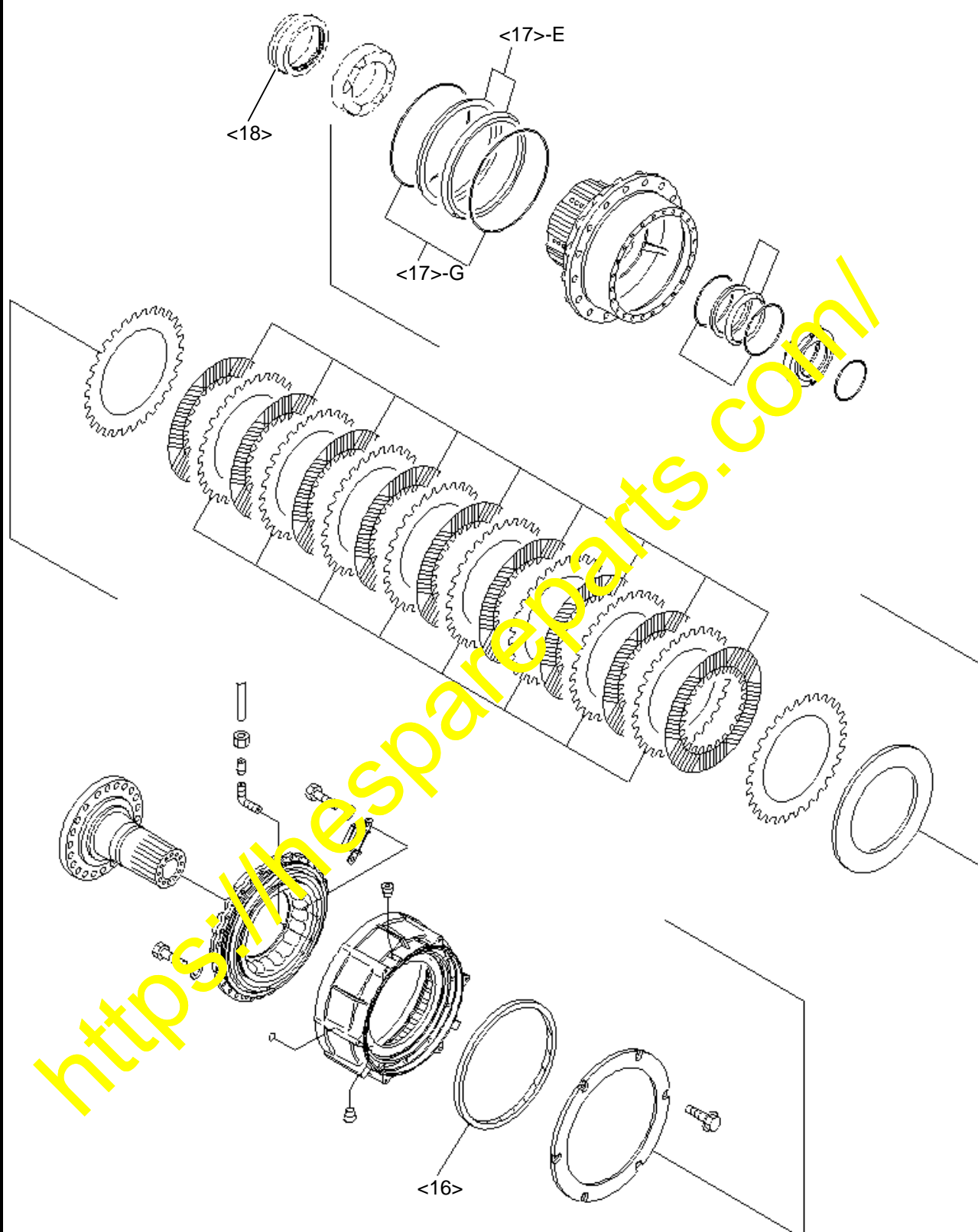


Fig. 8

3-2-1. Work procedure

- (1) Disassemble the front final drive · brake ass'y and the center final drive · brake ass'y according to the Shop Manual and remove the oil seal sleeve, floating seal and O-ring from the wheel hub.

Similarly, remove the oil seal, floating seal and O-ring from the brake outer gear.

• **Precautions when carrying out the disassembly work**

When carrying out the disassembly work, measure the total shim thickness of the wheel bearing pre-pressure adjusting shims currently installed and the width of the bearing retainer.

When making the reassembly work, it will become necessary to change the shim thickness in order to change the width of the bearing retainer and to re-adjust the wheel bearing pre-pressure load.

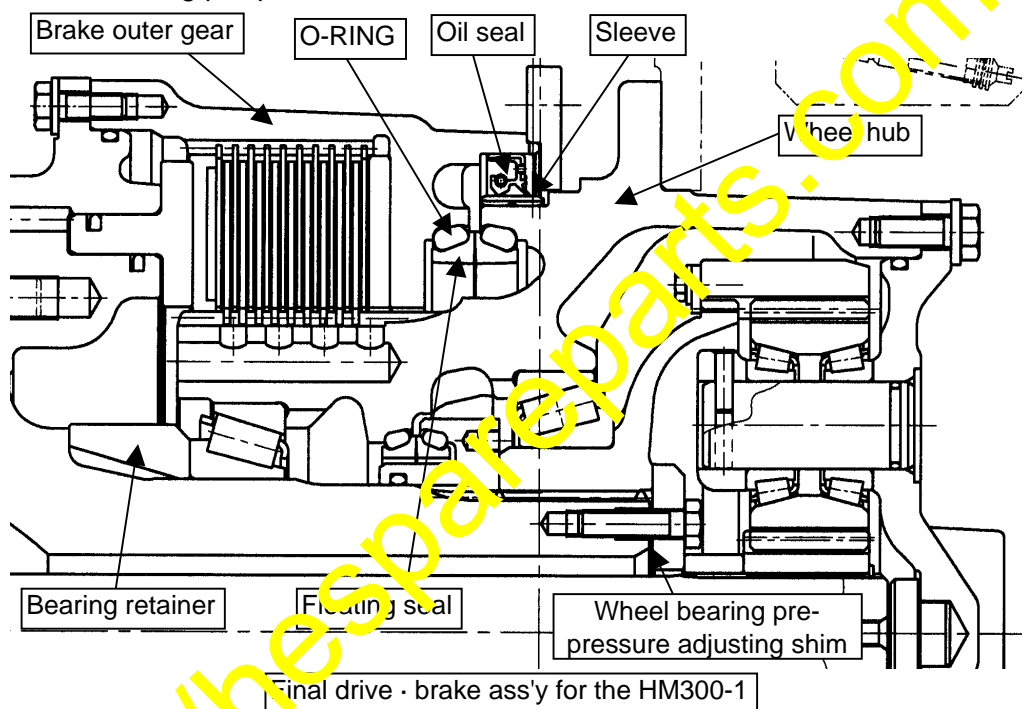


Fig. 9

- (2) Install the improved new floating seal (replacing parts <17>) to the brake outer gear and to the wheel hub.

When installing the floating seal, refer to the Section "**Precautions when installing the floating seal**".

Table. 4 Identification method for the replacing new floating seal and the current floating seal to be replaced:

Current floating seal	Improved new floating seal
Part No. 56D-33-11310 	Part No. 56D-33-11810

★ Precautions when installing the floating seal

- When installing a new floating seal, wash the surface of the O-ring using alcohol to remove the white powder remaining on the O-ring surface completely.
- Before installing the floating seal, degrease the contact surface to the O-ring of the outer gear, wheel hub and retainer completely.
- When installing the O-ring to the floating seal, be careful not to twist the O-ring.

IMPORTANT

- When installing the floating seal set (floating seal + O-ring) to the outer gear, to the wheel hub and to the retainer, use a special tool of a type which is designed to push the O-ring.

(Refer to the Shop Manual regarding the special tool.)

- When installing the floating seal set to the outer gear, to the wheel hub and to the retainer, if you apply alcohol onto the contact surface to the O-ring of the outer gear, wheel hub and retainer, the O-rings will slide more smoothly and the installation work will become easier.
- Apply engine oil to the seal surface "A". Also, check that dust is not adhering to the seal surface.

IMPORTANT

- Measure the height "a" of the seal against the outer gear, wheel hub and retainer at 4 places around the circumference and make sure that the dimensional difference is within 1 mm.

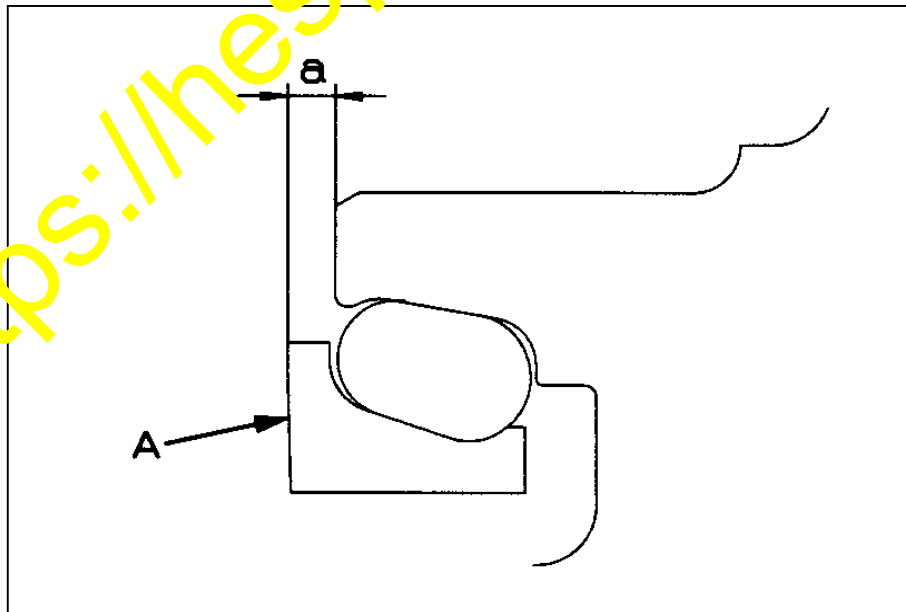
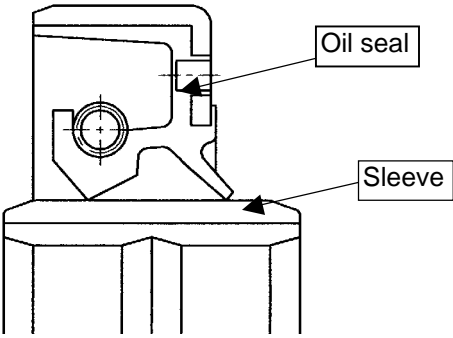
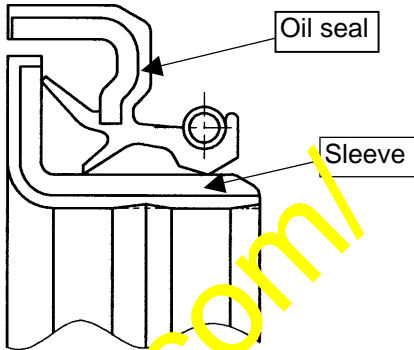


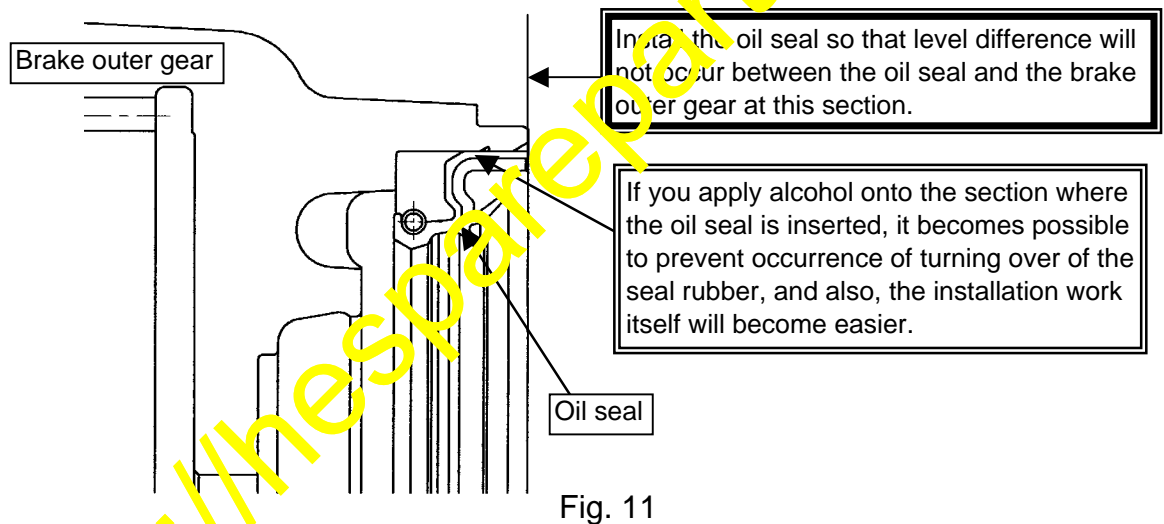
Fig. 10

- (3) Install the improved new oil seal (replacing parts <16>) to the removed brake outer gear and the wheel hub.

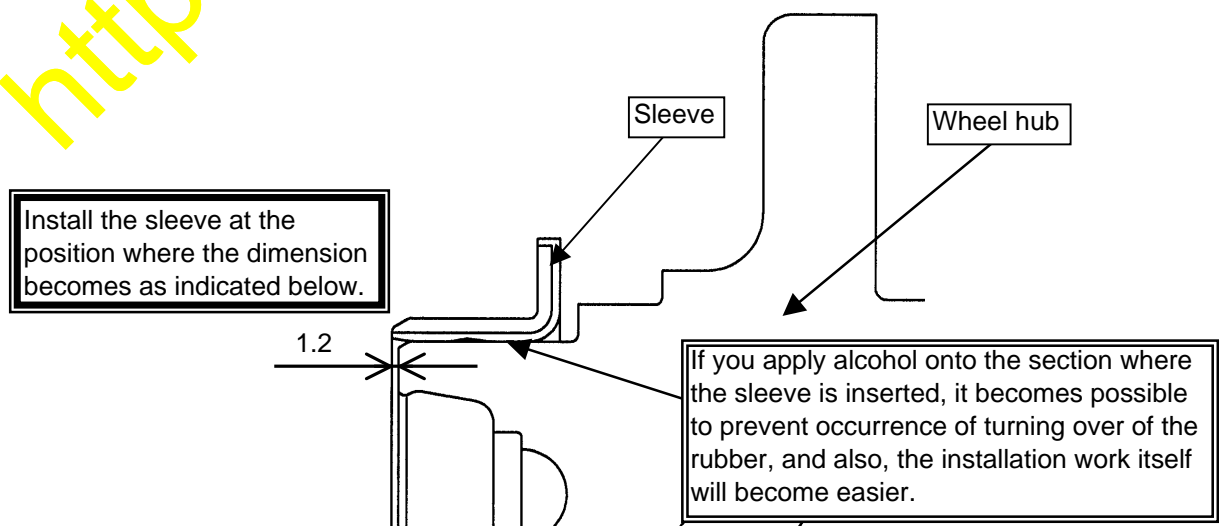
Table. 5

Current oil seal	Improved oil seal
Part No. 421-33-21811	Part No. 56D-23-13460
	

<1> How to install the oil seal to the brake outer gear



<2> How to install the sleeve to the wheel hub



<3> Other precautions when carrying out the installation work

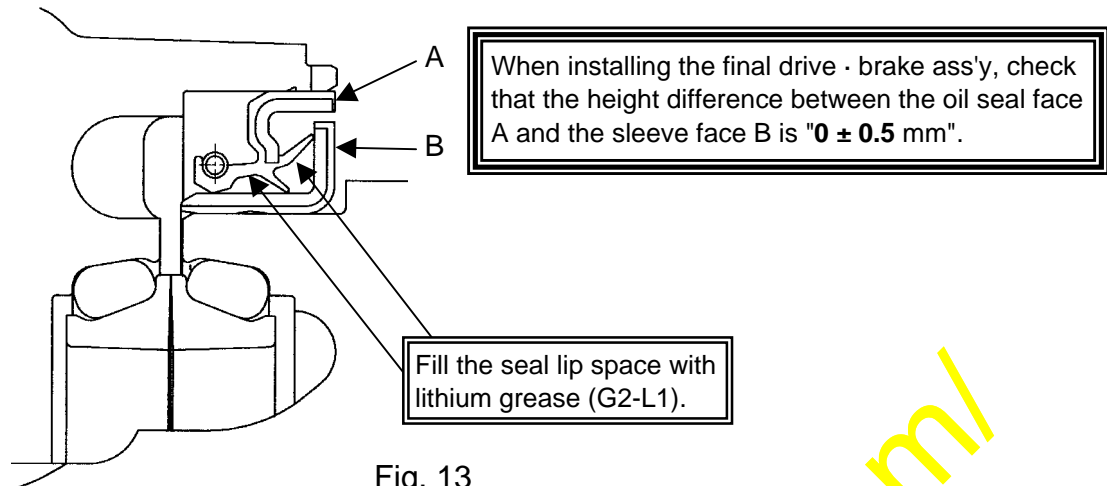


Fig. 13

(4) Install the final drive - brake ass'y according to the Shop Manual

• **Precautions when carrying out the installation work:**

- <1> When carrying out the reinstallation work, use the bearing retainer 56D-23-12632 (replacing parts <18>).
Also, before installing the bearing retainer 56D-23-12632 (replacing parts <18>), measure the width of the bearing retainer.
- <2> Regarding the wheel bearing pre-pressure adjusting shim thickness to employ when carrying out the reassembly work, calculate the proper shim thickness using the formula given below.

"Shim thickness to employ when carrying out the reassembly work" = "Shim thickness before carrying out the disassembly work" ("Actually measured current retainer width" - "Actually measured improved retainer width")

Table. 6 Dimensions of the current and improved bearing retainers and identification method

Part No. 56D-23-12631	Part No. 56D-23-12632

- (7) Fill the axle with oil to the specified oil level.
Use the exclusive axle oil AXO-80.
- (8) Fill the transmission with oil to the specified oil level.
- (9) Bleed air from the brake line for each wheel.

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