

**PARTS & SERVICE
NEWS**

REF NO.	AA98183
DATE	Aug. 24, 1998

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SUBJECT: LARGE BUCKET CYLINDER**PURPOSE:** To introduce buffer ring up-date on large bucket cylinders**APPLICATION:** WA500-1 Wheel Loaders, S/N 10001 thru 29999
WA500-3 Wheel Loaders, S/N 50001 and up
WA500-3L Wheel Loaders, S/N A70001 and up**FAILURE CODE:** H1Z099**DESCRIPTION:**

1. Introduction

When these wheel loaders are frequently used for heavy duty and harsh operations such as timber transportation, more frequent hydraulic oil temperature rises and hydraulic oil pressure increases occur to cause oil leakage through the rod-seal of the cylinder.

This Service News will introduce improved large bucket cylinders with enhanced rod-seal durability which can prevent occurrence of this oil leakage.

2. List of parts

Part No.	Part Name	Q'ty	Remarks
707-01-25011 (707-01-25010)	Dump CYL. ass'y (Dump CYL. ass'y)	1 (1)	
707-27-25210 (707-27-25041)	•Head (•Head)	1 (1)	} Other component parts are interchangeable with the current parts.
707-51-14080 (707-51-14030)	•Packing (•Packing)	1 (1)	
707-51-14640	•Buffer	1	
707-52-91160 (07177-01440)	•Bushing (•Bushing)	1 (1)	
01011-82400 (01010-82485)	•Bolt (•Bolt)	12 (12)	
707-58-14012 (707-58-14011)	•Rod (•Rod)	1 (1)	
707-01-02601 (707-01-02600)	Dump CYL. ass'y (Dump CYL. ass'y)	1 (1)	
707-27-25210 (707-27-25041)	•Head (•Head)	1 (1)	} Other component parts are interchangeable with the current parts.
707-51-14080 (707-51-14030)	•Packing (•Packing)	1 (1)	
707-51-14640	•Buffer	1	
707-52-91160 (07177-01440)	•Bushing (•Bushing)	1 (1)	
01011-82400 (01010-82485)	•Bolt (•Bolt)	12 (12)	
707-58-14131 (707-58-14130)	•Rod (•Rod)	1 (1)	
425-880-2050 (419-885-1130)	Plate (Plate)	1 (1)	Positioner plate for the WA500-3

3. Installing the positioner plate

In connection with the change of the bucket cylinder, the positioner plate should be changed. (WA500-3 only)

3-1) The positioner plate (15) for the WA500-1 remains the same as the current one.

Part numbers of the bucket cylinder and its attachments for the WA500-1

No.	Part name	For the improved cylinder (with the buffer ring)	For the current cylinder (without buffer ring)
1	Large cylinder	707-01-25011	707-01-25010
15	Plate	425-880-1551	←
	<Reference>		
17	Tube	425-870-1111	

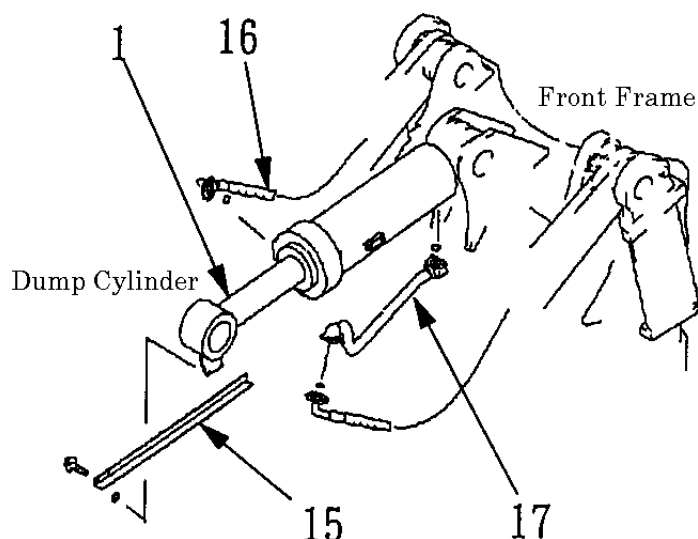
Note) Attachments which differ from those for the standard cylinder only are listed above.

3-2) The positioner plate (15) for the WA500-3 differs from the current positioner plate in the length only.

Part numbers of the bucket cylinder and its attachments for the WA500-3

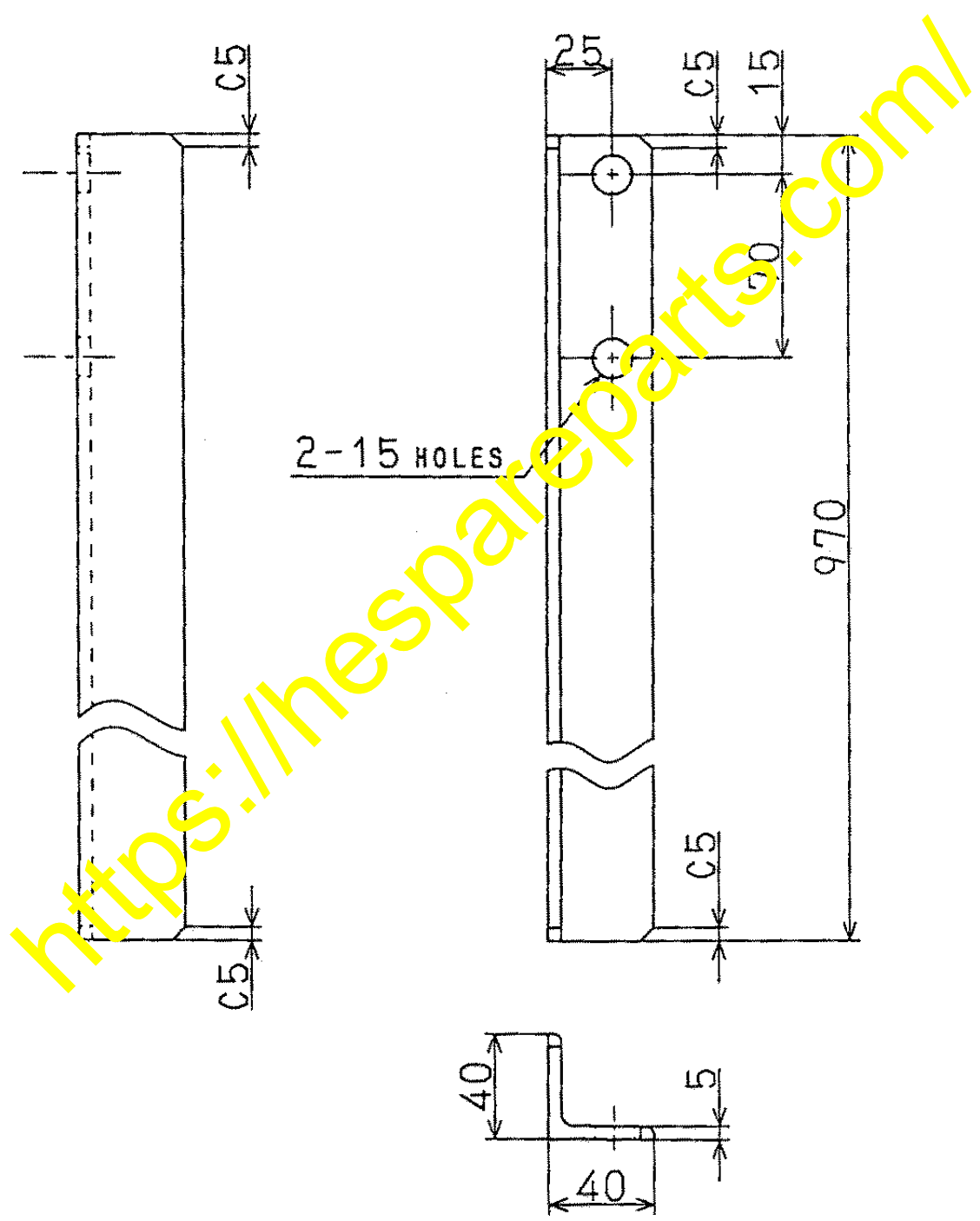
No.	Part name	For the improved cylinder (with the buffer ring)	For the current cylinder (without buffer ring)
1	Large cylinder	707-01-02601	707-01-02600
15	Plate	425-880-2550	419-883-1130
	<Reference>		←
16	Hose	425-870-2130	
17	Tube	425-870-1111	

Note) Attachments which differ from those for the standard cylinder only are listed above.



3-3) Drawing for the positioner plate on the WA500-3

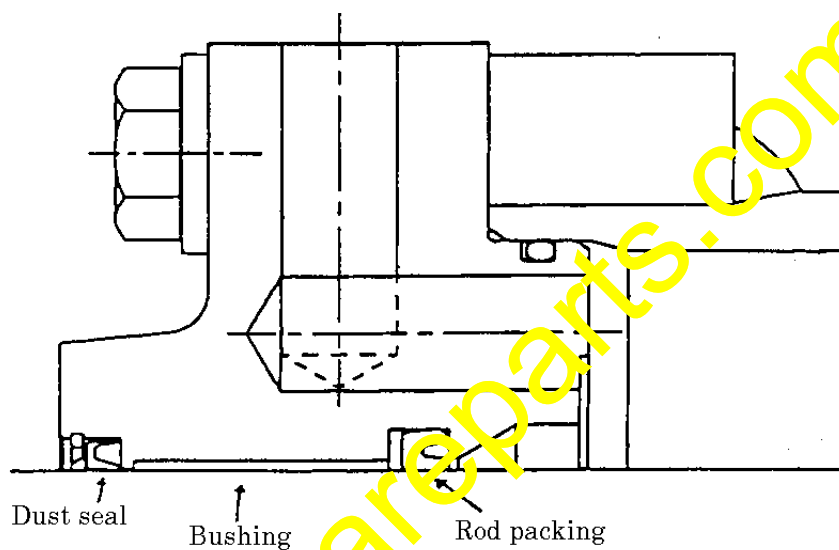
Part No. : 425-880-2550
Part name : Plate
Material : SS400A
Quantity : 1 unit/vehicle



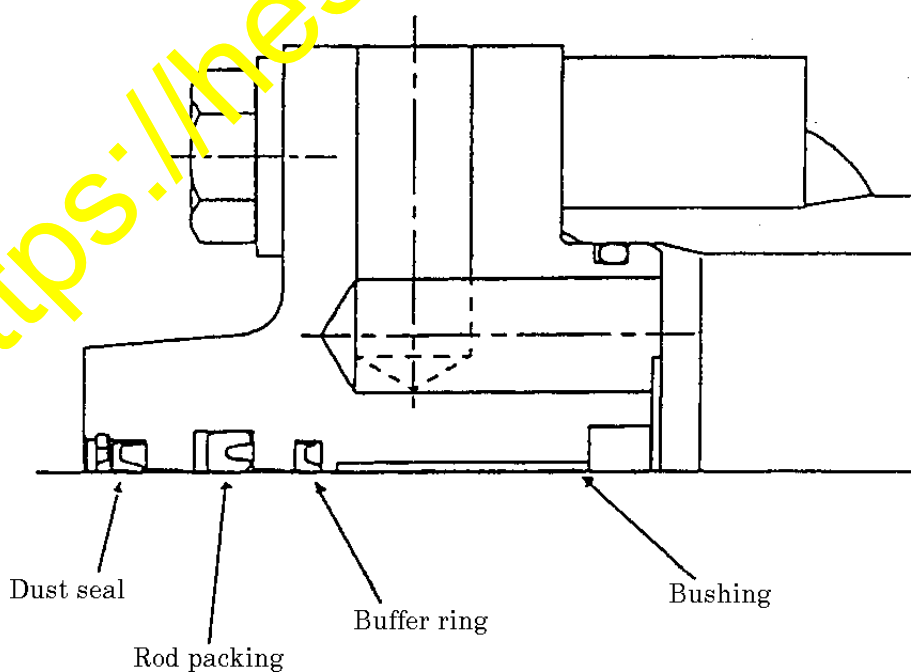
4. Modified point of the cylinder (comparison with the current cylinder)

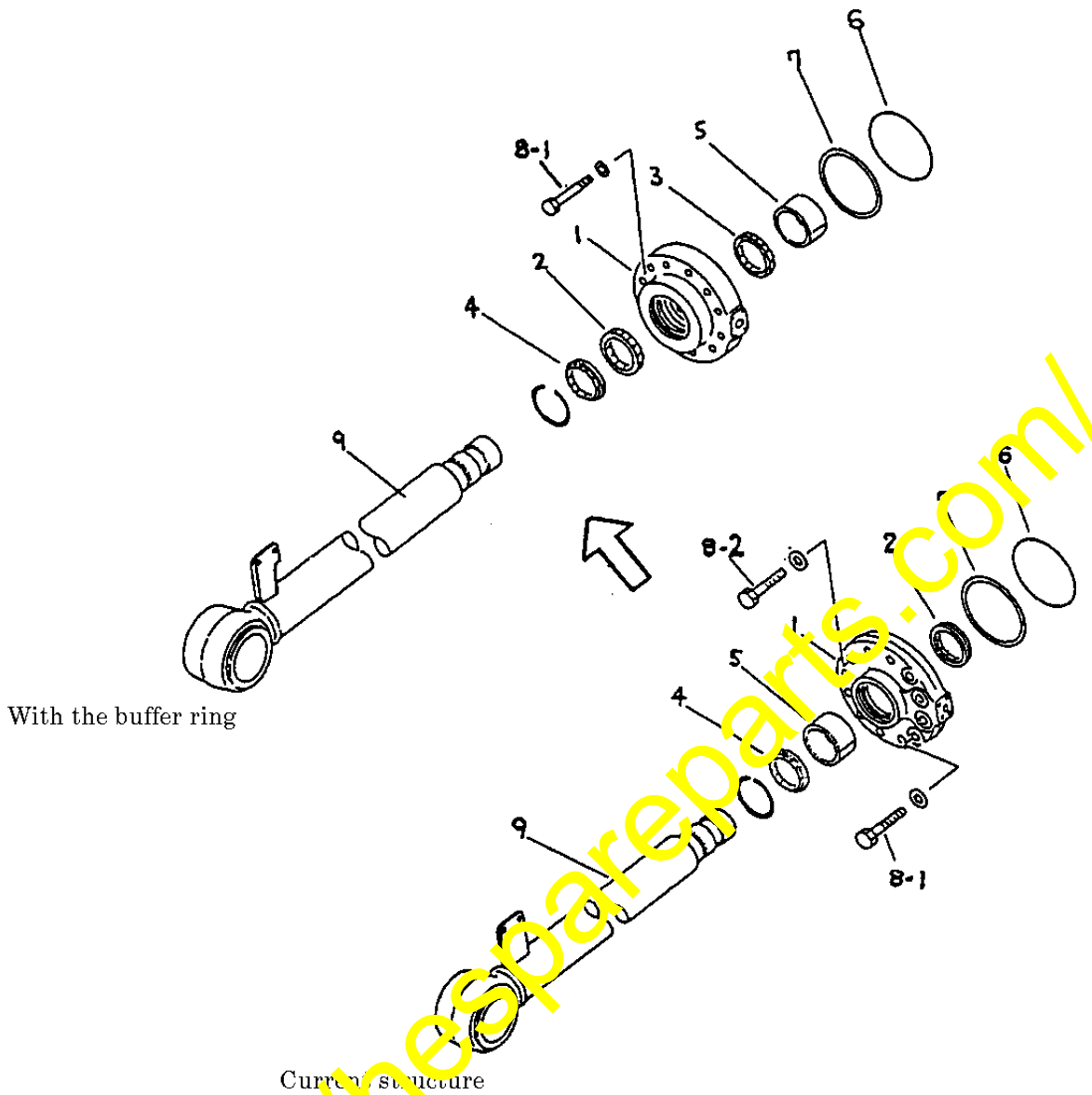
- (1) A buffer ring has been supplemented to the sealing system to alleviate the load of the rod-packing thus suppressing the oil leakage toward outside.

[Current structure]



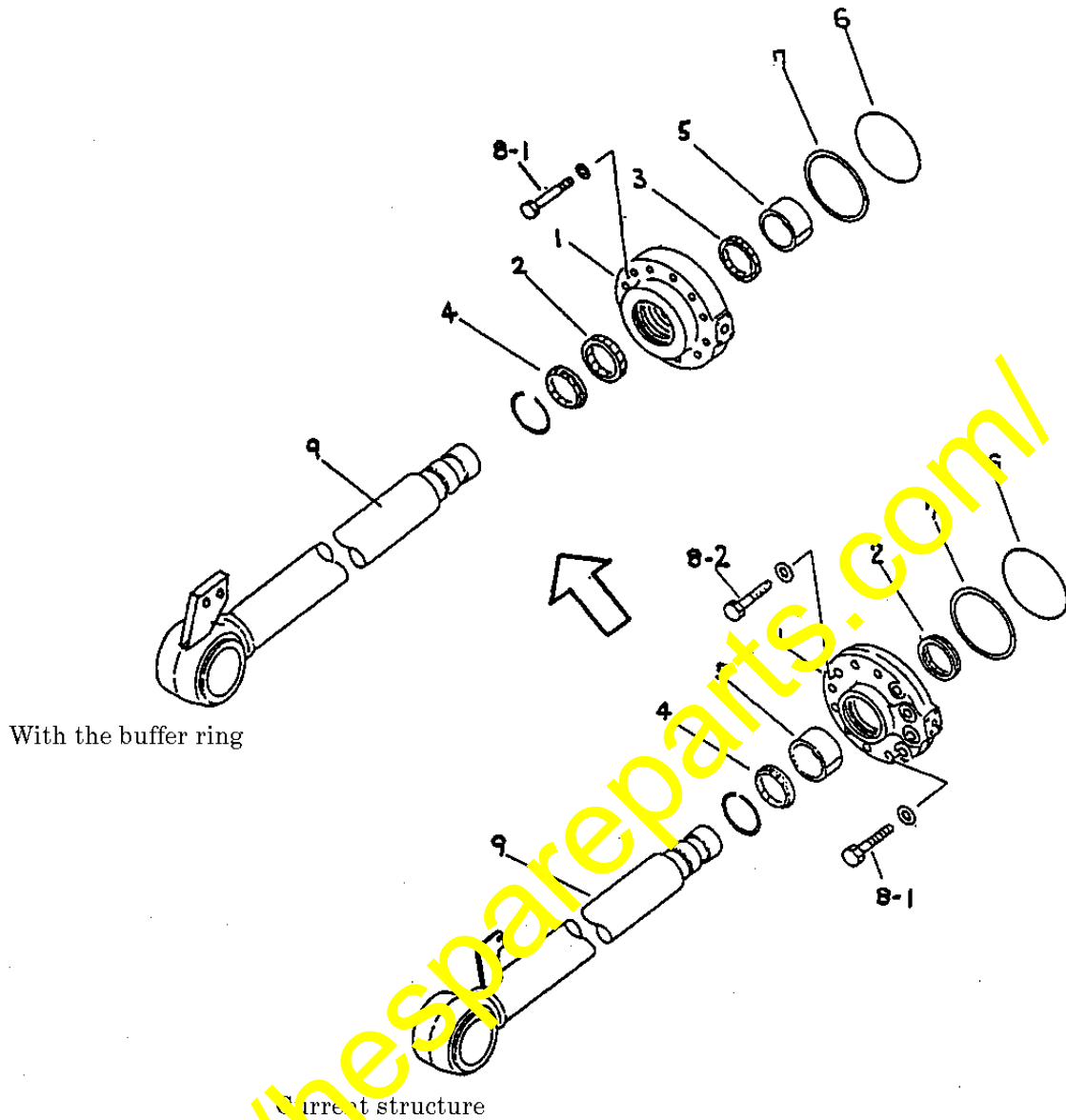
[Improved structure]





WA500-1 Dump CYL. (Large bucket)

No.	Part name	Current part numbers	Part numbers with the buffer	Quantity (units)
	CYL. Ass'y	707-01-25010	707-01-25011	
1	Head CYL.	707-27-25041	707-27-25210	1
2	Packing	707-51-14030	707-51-14080	1
3	Buffer	—	707-51-14640	1
4	Seal dust	198-63-93170	198-63-93170	1
5	Bushing	07177-01440	707-52-91160	1
6	O-ring	07000-15240	07000-15240	1
7	Ring backup	07146-05242	07146-05242	1
8-1	Bolt	01011-82400	01011-82400	12
8-2	Bolt	01010-82485	—	—
9	Rod piston	707-58-14011	707-58-14012	1

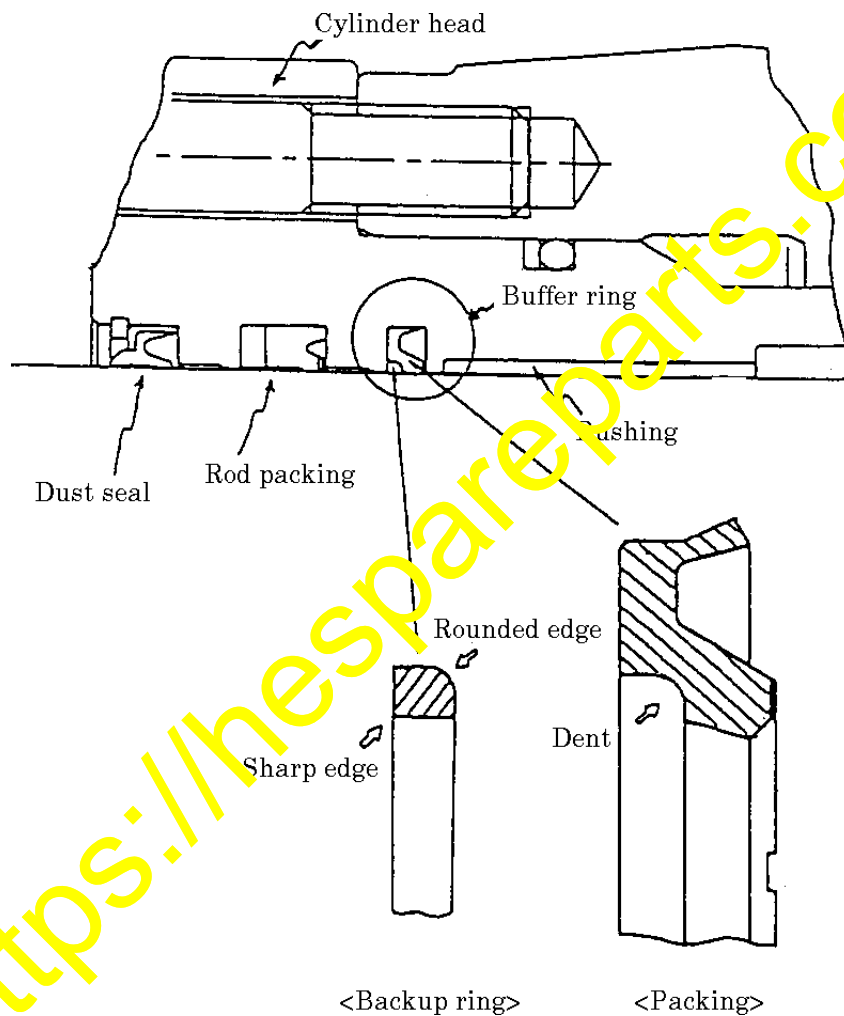


WA500 3 Dump CYL. (Large bucket)

No.	Part name	Current part numbers	Part numbers with the buffer	Quantity (units)
	CYL. Ass'y	707-01-02600	707-01-02601	
1	Head CYL.	707-27-25041	707-27-25210	1
2	Packing	707-51-14030	707-51-14080	1
3	Buffer	—	707-51-14640	1
4	Seal dust	198-63-93170	198-63-93170	1
5	Bushing	07177-01440	707-52-91160	1
6	O-ring	07000-15240	07000-15240	1
7	Ring backup	07146-05242	07146-05242	1
8-1	Bolt	01011-82400	01011-82400	12
8-2	Bolt	01010-82485	—	—
9	Rod piston	707-58-14130	707-58-14131	1

5. Installation procedures for the buffer ring

- 1) As shown in the schematic diagram given below, install the packing directing its U-groove toward inside of the cylinder.
- 2) After that, install the backup ring fitting its rounded edge to the matching dent in the packing.
At this time, make sure the backup ring will not project from the groove.



6. Reference

The combination of the packing and backup ring constitute the part number of the buffer ring. They are not available as spare parts separately.