

PARTS & SERVICE NEWS

REF NO. AT96236A

DATE April 16, 2004

(C)

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This **Parts & Service News** supercedes AT96236 dated Feb. 11, 1997 and should be discarded

SUBJECT: IMPROVEMENT OF HYDRAULIC CYLINDERS

PURPOSE: To introduce an improved hydraulic cylinder with increased durability in their cylinder rod sealing

APPLICATION: WA500-1 Wheel Loader, S/N 20001 thru 21259, A20131 and up
 WA500-1L Wheel Loader, S/N A20267 and up
 WA500-1LC Wheel Loader, S/N A60001 and up
 WA500-1LE Wheel Loader, S/N A61001 and up
 558 Wheel Loader, S/N 00601 and up

FAILURE CODE: H100AA

DESCRIPTION:

Wheel Loaders are used frequently for harsh work such as heavy duty digging, oil leakage may occur through the cylinder rod sealing of their respective cylinders owing to a rise in the hydraulic oil temperature and to frequent application of hydraulic oil pressure.

This **Parts & Service News** will introduce an improved hydraulic cylinder with increased durability in their cylinder rod sealing.

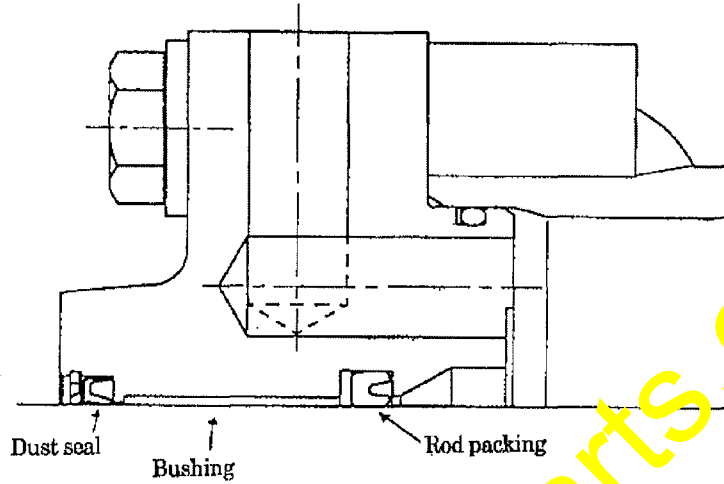
2. List of parts

Part No.	Part Name	Q'ty	Remarks
707-01-01041 (707-01-01040)	Lift cyl ass'y (Lift cyl ass'y)	2 (2)	Other components of the assembly are interchangeable with current parts.
707-27-20381 (707-27-20350)	Head (Head)	1 (1)	
707-51-11640	Buffer	1	
707-52-90860 (707-52-11110)	Bushing (Bushing)	1 (1)	
01010-82000 (01010-82075)	Bolt (Bolt)	12 (12)	
707-01-01242 (707-01-01241)	Dump cyl ass'y (Dump cyl ass'y)	1 (1)	Other components of the assembly are interchangeable with current parts.
707-27-22040 (707-27-22340)	Head (Head)	1 (1)	
707-51-12640	Buffer	1	
707-52-90950 (707-52-11210)	Bushing (Bushing)	1 (1)	
707-58-12190 (707-58-12250)	Rod (Rod)	1 (1)	
707-00-03852 (707-00-01850)	Steering cyl A. (L.H) (Steering cyl A. (L.H))	1 (1)	Since the cylinder head length is different, these are sealing kits including the head and are not interchangeable.
707-00-03952 (707-00-01950)	Steering cyl A. (L.H) (Steering cyl A. (L.H))	1 (1)	
707-51-55640	Buffer	1	
707-52-90300 (07177-05530)	Bushing (Bushing)	1 (1)	

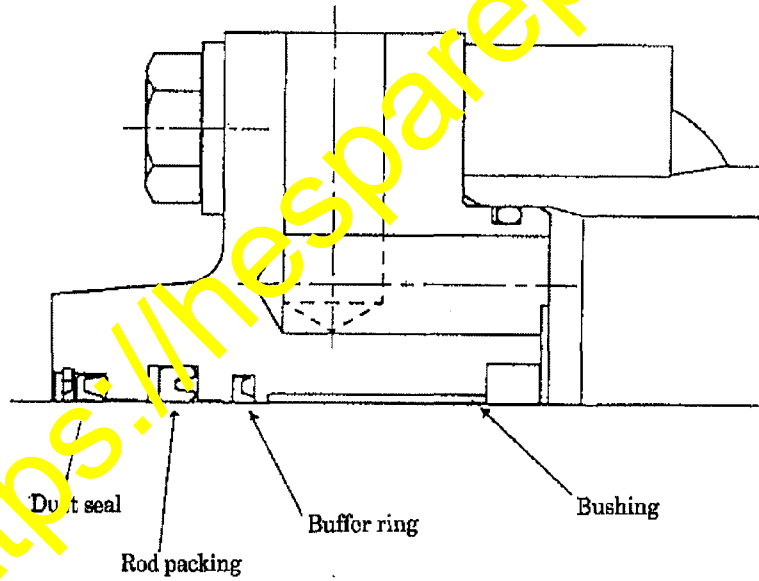
2. Contents of the modification (Comparison with the current part)

- (1) A buffer ring has been supplemented to the sealing system to lessen the load of rod packing and to suppress oil leakage towards the outside.

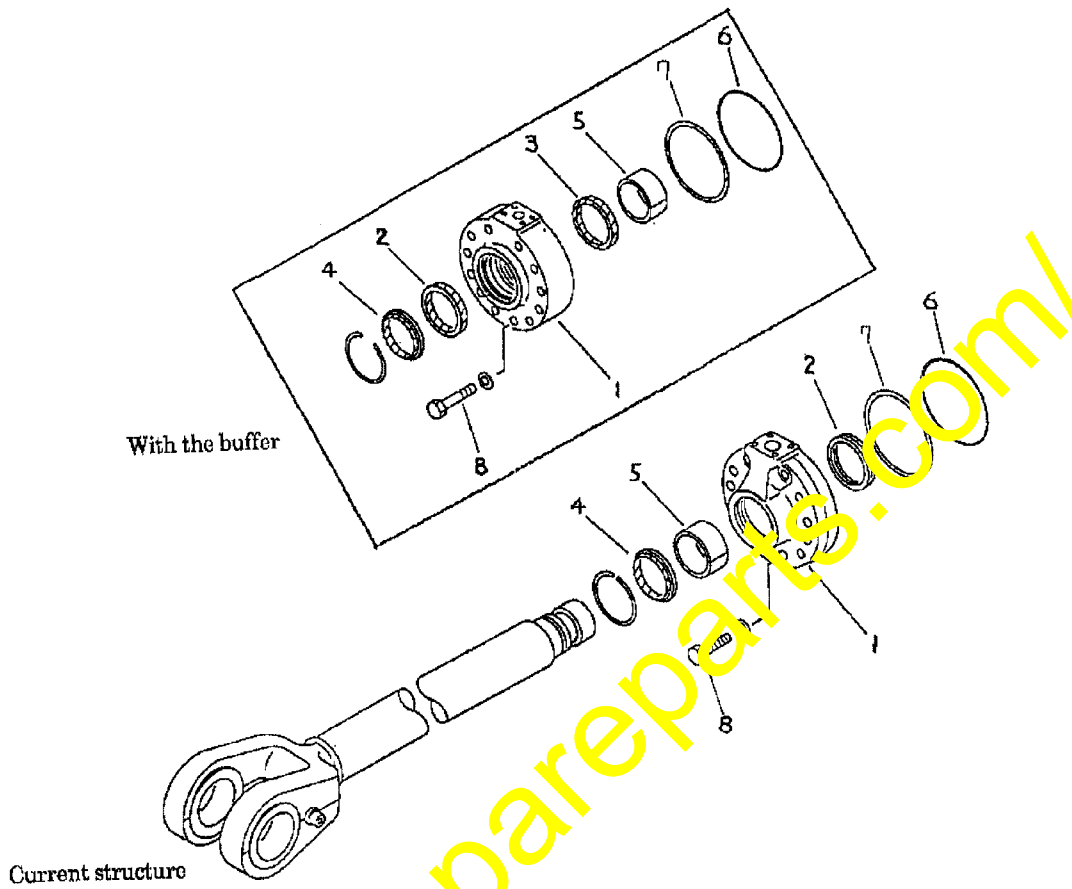
[Current structure]



[Improved structure]

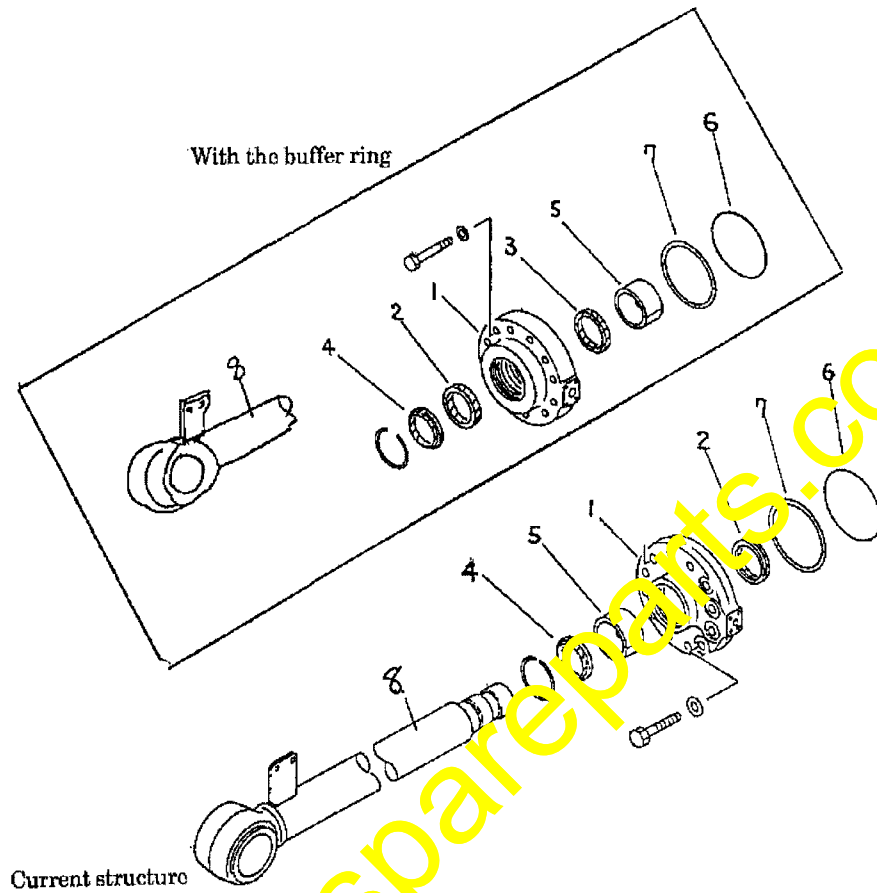


LIFT CYLINDER



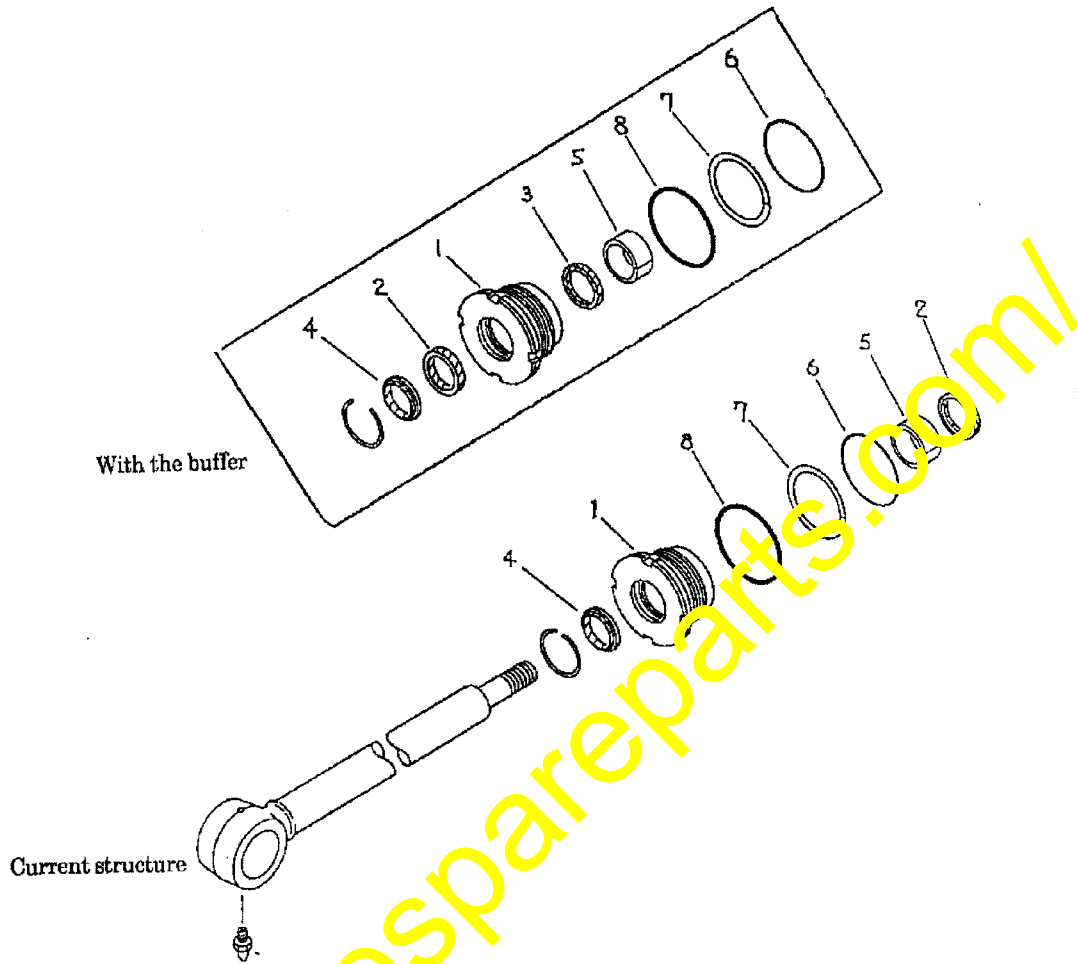
No.	Part names	Current part numbers	With-buffer spec part numbers	Quantities (Q'ty/cylinder)
	CYL. As'y	707-01-01040	707-01-01041	
1	Head CYL.	707-27-20350	707-27-20381	1
2	Packing	707-51-11030	707-51-11030	1
3	Buffer	—	707-51-11640	1
4	Seal dust	198-63-94170	198-63-94170	1
5	Bushing	707-52-11110	707-52-90860	1
6	O-ring	07000-15190	07000-15190	1
7	Ring backup	07146-05192	07146-05192	1
8	Bolt	01010-82075	01010-82000	12

DUMP CYLINDER



No.	Part names	Current part numbers	With-buffer spec part numbers	Quantities (Q'ty/cylinder)
	CYL. Ass'y	707-01-01241	707-01-01242	
1	Head C.Y.L.	707-27-22340	707-27-22040	1
2	Packing	707-51-12030	707-51-12030	1
3	buffer	—	707-51-12640	1
4	Seal dust	195-63-93170	195-63-93170	1
5	Bushing	707-52-11210	707-52-90950	1
6	O-ring	07000-15220	07000-15220	1
7	Ring backup	07001-05220	07001-05220	1
8	Rod	707-58-12250	707-58-12190	1

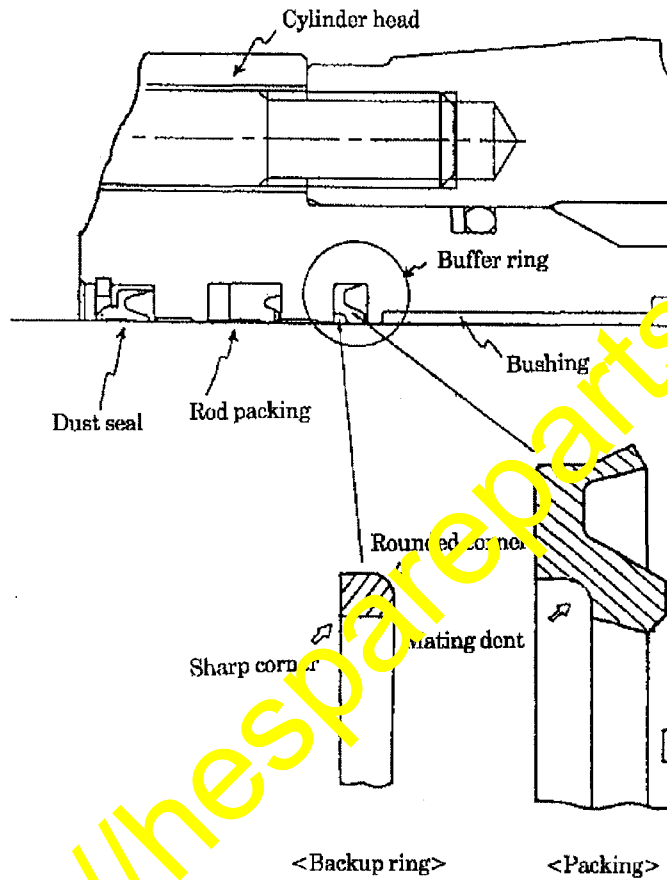
STEERING CYLINDER



No.	Part names	Current part numbers	With-buffer spec part numbers	Quantities (Q'ty/cylinder)
	CYL. Assy (L.H.)	707-00-01950	707-00-03852	
	CYL. Assy (R.H.)	707-00-01850	707-00-03952	
1	Head CYL.	707-29-11730	707-29-11210	1
2	Packing	707-51-55030	707-51-55030	1
3	Buffer	—	707-51-55640	1
4	Seal dust	707-56-55510	707-56-55510	1
5	Bushing	07177-05530	707-52-90300	1
6	O-ring	07000-12105	07000-12105	1
7	Ring backup	07146-02106	07146-02106	1
8	O-ring	07000-02110	07000-02110	1

4. Buffer ring installation procedures

- 1) Install the buffer ring directing the U-shaped side of its packing towards the inside of the cylinder, as illustrated below.
- 2) Then, engage the backup ring with its rounded corner fitting to the mating dent of the backup ring. When doing this, make sure the backup ring is not displaced from the mating groove.



5. Reference

The buffer ring constitutes a part number in combination with the packing and the backup ring and they are not available as separate spare parts.