



NUMBER: B408R1178-0

DATE: June 6, 1997

SUPERSEDES:

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## SERVICE BULLETIN

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Effective Serial Number: 408-96002 through 408-97019

Ride: CHAOS

Subject: Hydraulic System Rework

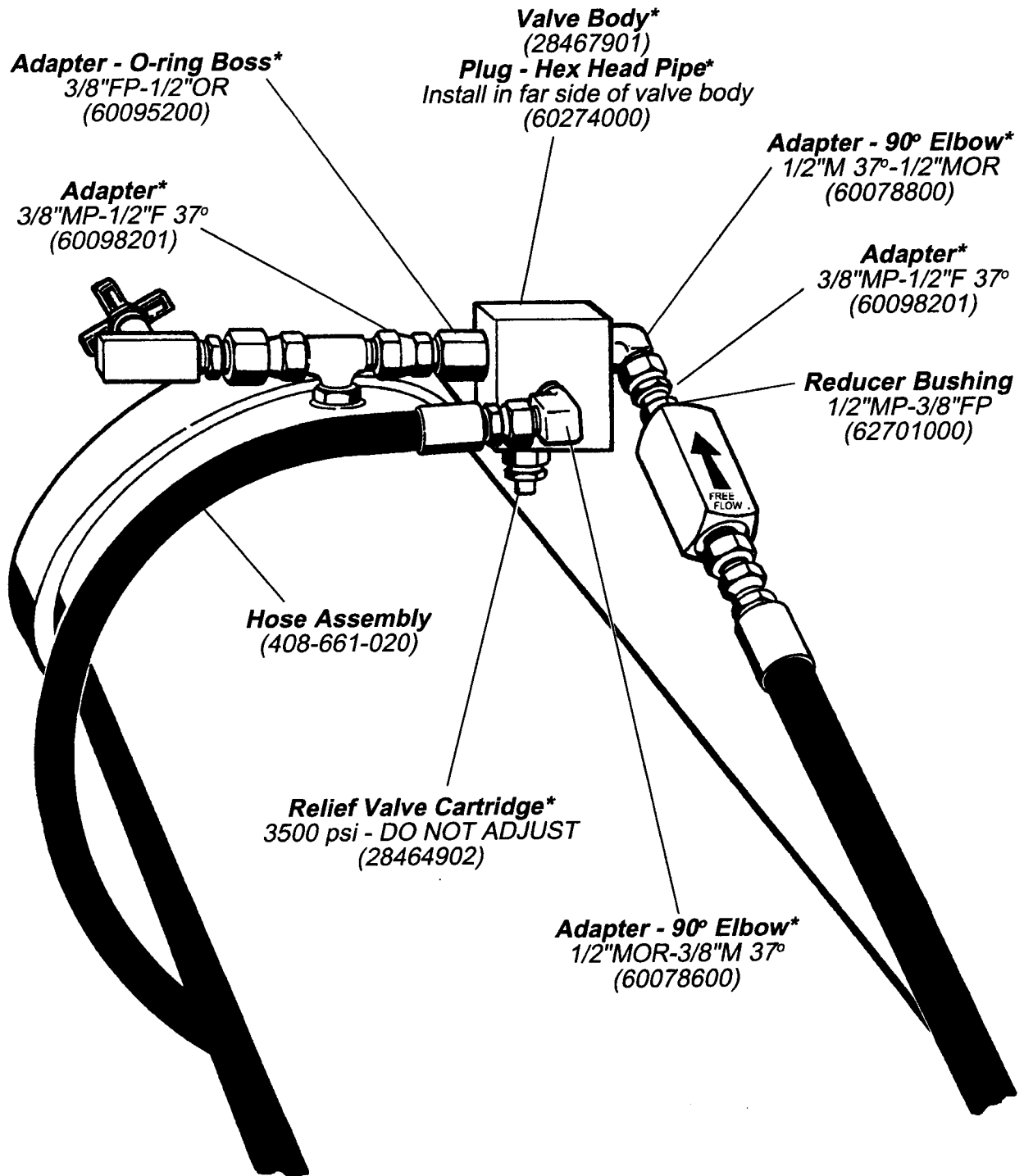
Chance Rides, Inc. has become aware of at least one case on a CHAOS amusement ride when the rod seal on the boom lift cylinder failed. The failure of the seal was caused by operating the ride in cold weather. The failure of the seal did not result in a safety problem, but rather allowed excessive leakage of hydraulic fluid from the system. Chance Rides, Inc. has designed a rework kit that, when properly installed will prevent excessive internal oil pressure from building up in the cylinder, reducing the possibility of failure of the seal.

All owner/operators of the above noted amusement rides are required to order and install kit number K408R1178-0, using the installation instructions furnished with this bulletin. Each kit contains all necessary parts to rework one ride. Kits are available at no charge if ordered within 90 days of the day on this bulletin. Failure to order and install this kit will cause any warranty on the lift cylinder to be voided.

Kit number K408R1178-0 contains the following:

<u>Part Number</u>	<u>Component</u>	<u>Quantity</u>
62701000	Reducer Bushing (1/2"MP-3/8"FP)	1
60274000	Plug - hex head pipe	1
60104600	Adapter (1/4"MOR-1/2"F 37 degree)	2
60095200	Adapter O-ring boss (3/8"FP-1/2"OR)	1
60078800	Adapter 90 degree elbow	1
60078600	Adapter 90 degree elbow	1
28464902	Relief valve cartridge (3500psi)	1
28467901	Valve body	1
408-661-020	Hose assembly	1

3. Install the parts provided in the kit as shown in the following illustrations.
4. After all parts are installed, operate the ride, then check for leaks at all hoses, tubes and fittings.



**\* These parts can be sub-assembled prior to installation on the ride.**

All work must be performed by qualified people, capable of understanding the function of the parts and their proper installation.

**NOTICE**

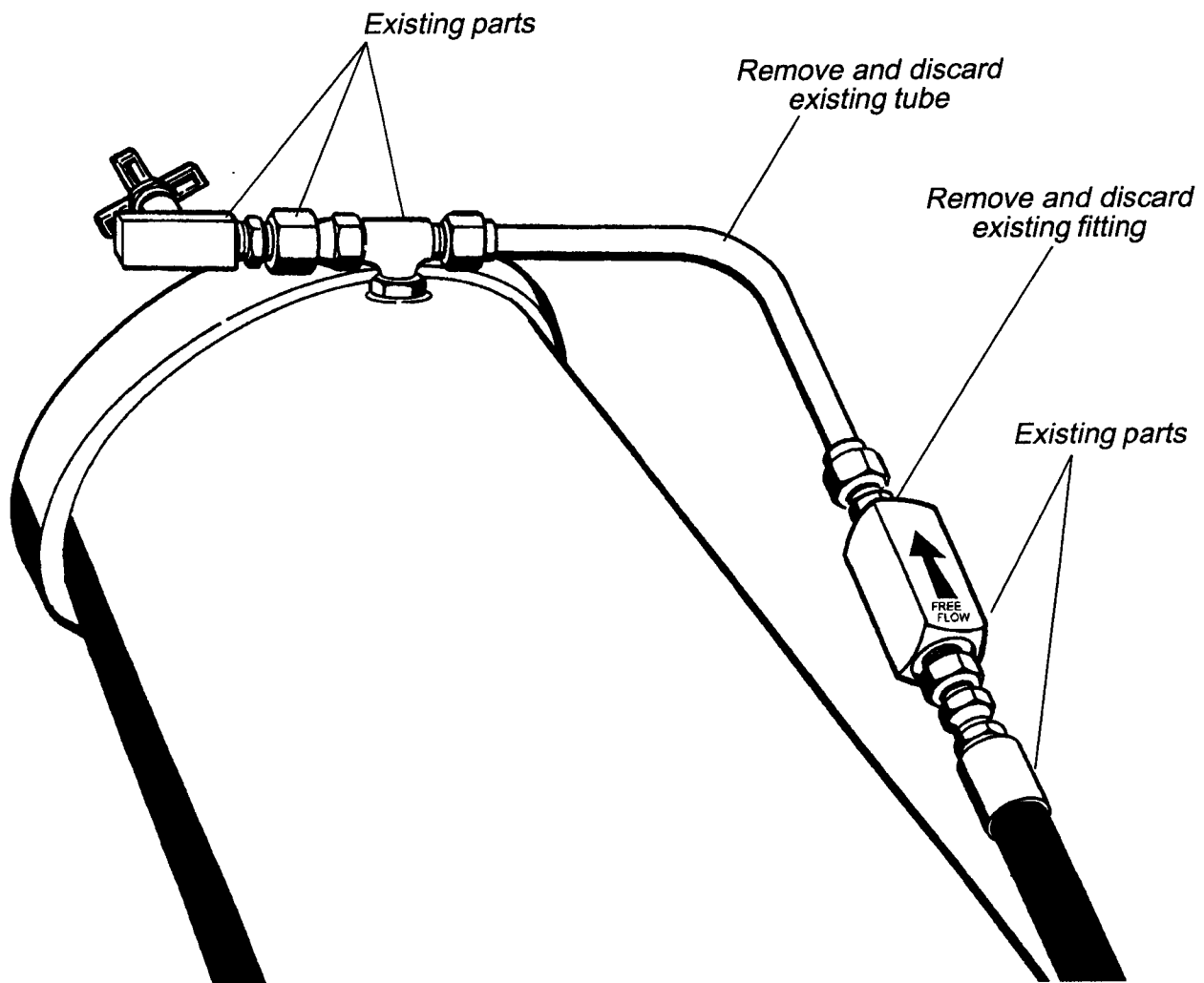
Use only those components authorized, specified or provided by Chance Rides, Inc.

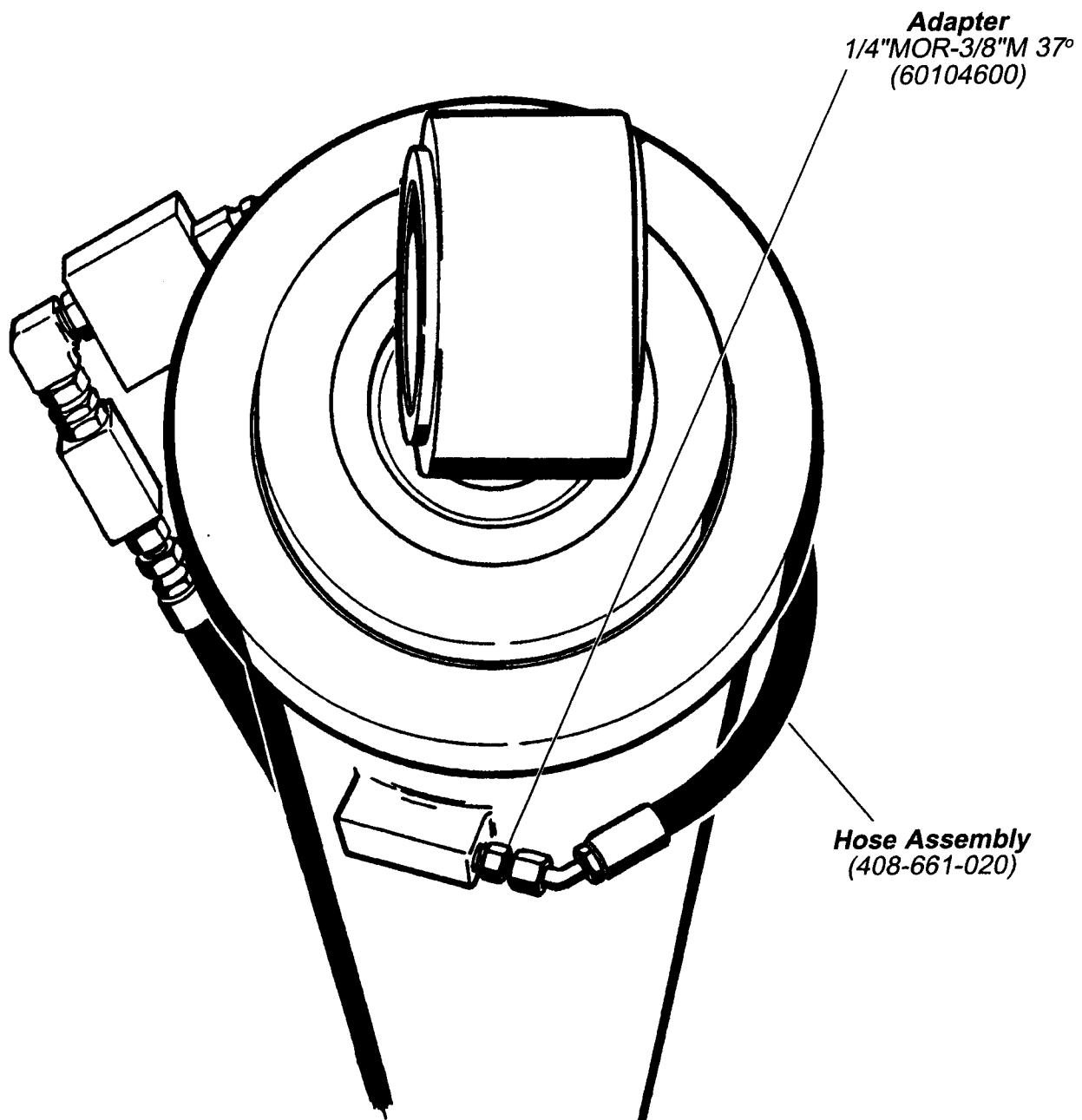
Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY LIABILITY for losses associated with any unauthorized alteration and/or modifications or additions and installations of unauthorized components.

## INSTALLATION INSTRUCTIONS

### Hydraulic System Rework Kit

1. Lower the boom completely, stop the hydraulic pump, and shut off the power at the main breakers.
2. Locate the tube at the "T" fitting at the rod end of the boom lift hydraulic cylinder. Remove and discard the tube. Loss of hydraulic fluid will be minimal.





**VIEW OF UNDERSIDE OF BOOM LIFT CYLINDER**