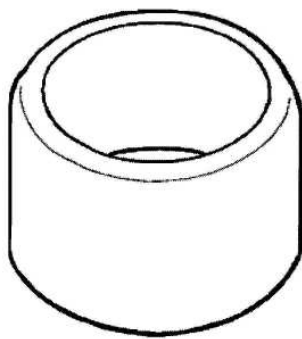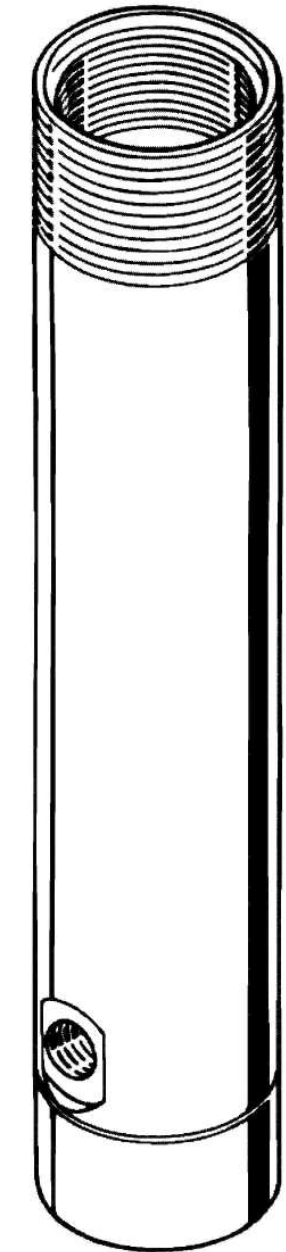# SM0034 - Speed-Midget 4 Ton Hydraulic Ram
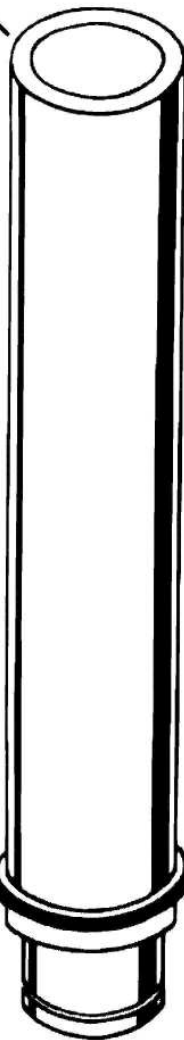
330049 PISTON ASSEMBLY
INCLUDES:
330030 & 313573

212942 PROTECTOR RING

330183 WIPER RING

REPLACED ONE PIECE
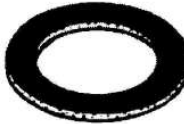ASSEMBLY JUNE 1999

330030 PISTON
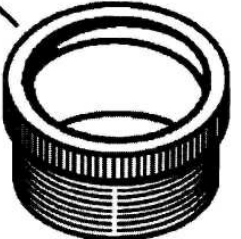
312938 COLLAR
UPPER GUIDE
WITH WIPER RING

330159 CYLINDER

330228 SWIVEL, SPRING

330156 SCREW
SPRING RETAINING

313573 RETAINING
RING, PISTON

312987 COLLAR, GUIDE

312989 WASHER, BACK-UP

312945 SPRING

212984 U-CUP

212985 RETAINING RING
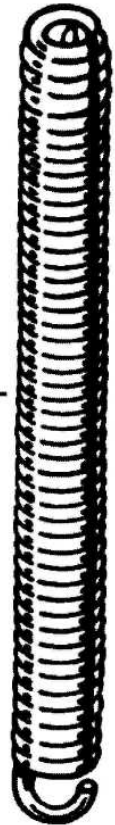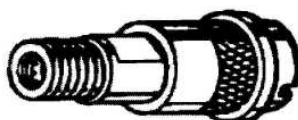
212951 SCREW, SPRING RETAINING

210271 SCREEN

BU0602 COUPLER

23

SM0034 4-TON RAM
SERVICE INSTRUCTIONS

DISASSEMBLE:

1) Collapse to lowest position and remove ram half coupler (BU0602).
2) Remove screen (210271) from hose hole.
3) Remove spring screw (212951) from base of hose hole to release spring (312945).
4) Remove upper collar bearing (312938).
5) Grasp cylinder (330159) with the hose hole up while removing piston (330030). If piston sticks, hold cylinder (lightly) in a smooth vise.
6) With retaining ring pliers, remove packing retaining ring (212985).
7) In succession, remove "U" cup (212984), back-up washer (212989) and ram guide collar (312987).

REASSEMBLE:

1) Check cylinder (330159) and guide collar (312987) for scoring and fit. Check all metal parts for wear, burrs or damage.
2) Thoroughly clean all metal parts.
3) Assemble guide collar (312987) to piston (330030). *Make sure recess in guide collar is toward (313573) retaining ring on piston.*
4) Place back-up washer (212989) against guide collar on piston.
5) Place "U" cup (212984) with flat side against back-up washer on piston.
6) With retaining ring pliers place retaining ring (212985) in groove on end of piston.
7) Coat outer race of guide collar, back-up washer and "U" cup with medium consistency, high temperature, bearing grease and insert piston assembly into cylinder until it reaches bottom.
8) Align loop in spring (312945) with screw hole in hose hole of cylinder.
9) Replace spring screw (212951) into screw hole in hose hole of cylinder to secure spring. Tighten securely.
10) Apply a drop or two of thread adhesive, screw on upper collar bearing (312938) and tighten by hand. *Do not use a permanent thread adhesive.*
11) Insert screen (210271) into hose hole.
12) Apply thread sealant to ram half coupler (BU0602) and screw into hose hole. *Be careful to avoid mixing sealant with hydraulic fluid by skipping the first three threads of the inserted portion of the coupler.* Tighten securely.
13) Attach ram to pump and test for leaks and operation.