

# *Technical Bulletin*

Bulletin No.: PRO-11-01    Effective Date: 9/15/78    Cancels: PRO-11-01 dated 5/3/76    Page: 1 of 3

Subject: **AH-4 Air-Over-Hydraulic Intensifier**

Ref: Figures 1, 2, 3, 4, 5, and 6

The AH-4 Air-Over-Hydraulic Intensifiers have been in use for approximately three years and service requirements are starting to materialize.

The AH-4 uses one basic master cylinder design in combination with either a type 50, type 36 or a type 30 Rotochamber giving a pressure ratio of 23.5:1, 17:1 or 13.5:1 respectively. Master cylinder volume for type 50 and 36 is 6 inch<sup>3</sup>; for type 30 Master Cylinder Volume is 4.8 inch<sup>3</sup>.

Hydraulic fluid is supplied to the master cylinder from either a direct or a remote mounted reservoir. Most AH-4's use hydraulic brake fluid; however, certain models, equipped with different seals, use mineral type hydraulic oil.

Most assemblies are equipped with a stroke warning switch which will close upon excessive stroke, lighting a light at the operator's station.

The Rotochambers normally breathe from the non-pressure area through four openings between the head and shell; however, certain models designed for dusty operating conditions are designed with a close fit between head and shell and breathe through an air filter in the head.

Mounting brackets are normally supplied at each end of the rotochamber for either right of left-hand mounting and the high pressure hydraulic connection may be on either the right or left side of the master cylinder.

Figure 1 is a cross section of an assembly with integral reservoir.

Figure 2 shows a section of a 3/8" NPT adapter for connecting a remote reservoir.

Figure 3 shows an adapter with 1/4" flared tube seat.

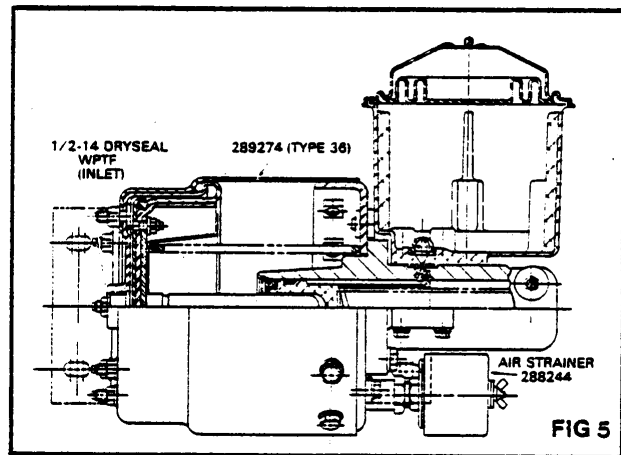
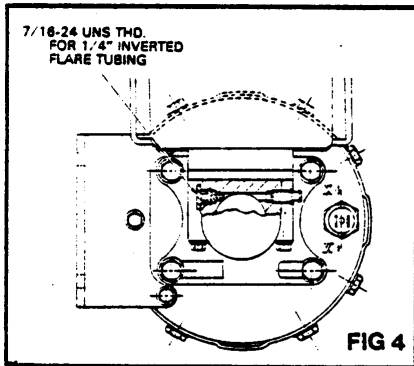
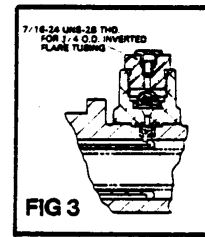
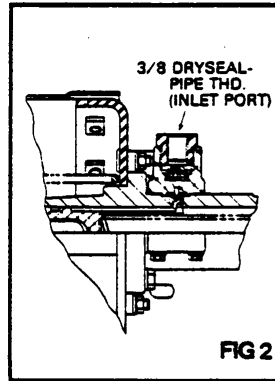
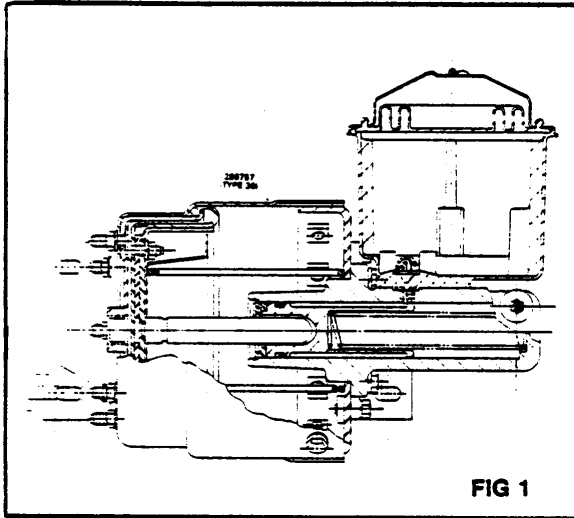
Figure 4 shows an end view of a master cylinder with left-hand mounting bracket and right-hand hydraulic delivery.

Figure 5 shows a cross section of the dust-resistant version with an air filter for breathing non-pressure air.

Figure 6 is a chart of the most popular Pc. Nos. indicating their configuration reference the foregoing figures and also vehicles on which most of the OEM installations have been made.

Service Data for AH-4's is available in SD-11-1 publication.

Maintenance kits for the master cylinder are available under Pc. No. 289286 for brake fluid and No. 289287 for mineral oil.



AH-4	ROTOCHAMBER	MASTER CYLINDER	RESERVOIR		DELIVERY PORT		BRACKET LOCATION		ORIGINAL EQUIPMENT INSTALLATION		
			Integral	Remote	Left	Right	Left	Right	Ford	Mack	Harnischfeger
286756 (288857)	Note: 286757 (36)	288382 <sup>c</sup>		X		X			X	X	
287044 (286754)	286745 (50)	286746	X			X			X	X	
288393 (288856)	286757 (36)	286746	X			X			X	X	
286761	286757 (36)	286755		X	X						X
287070	286745 (50)	287069		X		X	X				X
287071	286757 (36)	287069		X		X	X				X
289382*	286745 (50)	287069		X		X	X				X
289384*	286757 (36)	287069		X		X	X				X
289273 <sup>b</sup>	289274 (36)	286746	X			X		X			X
288568	288591 (30)	286746	X			X		X			X
288569	288591 (30)	287069		X		X		X			X

\* WARNING SWITCH NOT INCLUDED

b NON-PRESSURE AIR BREATHS THRU AIR STRAINER 288244, PER FIGURE #5

c HYDRAULIC INLET, PER FIGURE #3

NOTE: UPPER NUMBER IN BRACKET NOW OBSOLETE, SUPERCEDED BY NUMBER IN PARENTHESIS.