Form P6199
Edition 6
February, 1987

SERIES 93 AND 95 DIGGERS

Always operate, inspect and maintain this tool in accordance with American National Standards Institute Safety Code for Portable Air Tools (ANSI B186.1) and any other applicable safety codes and regulations.

FOR TOP PERFORMANCE AND MAXIMUM DURABILITY OF PARTS, OPERATE THIS TOOL AT 90 psig (6.2 bar/620 kPa) AIR PRESSURE WITH 3/4" (19 mm) AIR SUPPLY HOSE.

WARNING

Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool. Failure to do so could result in injury.

PREPARATION FOR SERVICE

Pour about 3 cc of clean kerosene into the air inlet and operate the tool for 10 or 15 seconds. Immediately afterward, disconnect the hose and pour about 3 cc of Ingersoll-Rand Lubricant No. 10, light valve oil, or high-speed spindle oil into the air inlet and again operate the tool to lubricate the internal parts cleaned by the kerosene.

LUBRICATION

Use Ingersoll-Rand Lubricant No. 10, or a good grade, non-gumming, high-speed spindle oil.

We recommend an air line lubricator be used with each tool. Install an Ingersoll-Rand No. 8LUB12 lubricator unit (1/2 pt. capacity) as close to the tool as practical. Adjust the lubricator so there is a slight oil mist in the exhaust. Unless a lubricator is used, lubricate the tool as follows:

For T-Handle Tools: At the beginning of the work shift after each eight hours of operation, unscrew the Oiler Plug (33) from the Oiler Body (32) and fill the chamber with the recommended oil.

For Tools with Trigger Handle: At the beginning of the work shift and after each two or three hours of operation, pour 3 cc of the recommended oil into the air inlet.

After each 48 hours of operation, or at any time the tool operates sluggishly, flush the tool with kerosene as described in Preparation for Service. Immediately afterward, pour 3 cc of the recommended oil into the air inlet and operate the tool long enough to lubricate the internal parts cleaned by the kerosene.

CAUTIONS

Keep the Handle Bolt Nuts (16) tight. Check periodically. Install the Buffer (27), Buffer Spacers (28) and Buffer Washers (29) in the order illustrated in the sectional views. Note that tools with a hexagon Nozzle (24) have the Buffer Spacer installed adjacent to the Nozzle while tools with a square Nozzle have the Buffer Spacer installed adjacent to the forward end of the Retaining Sleeve (26).

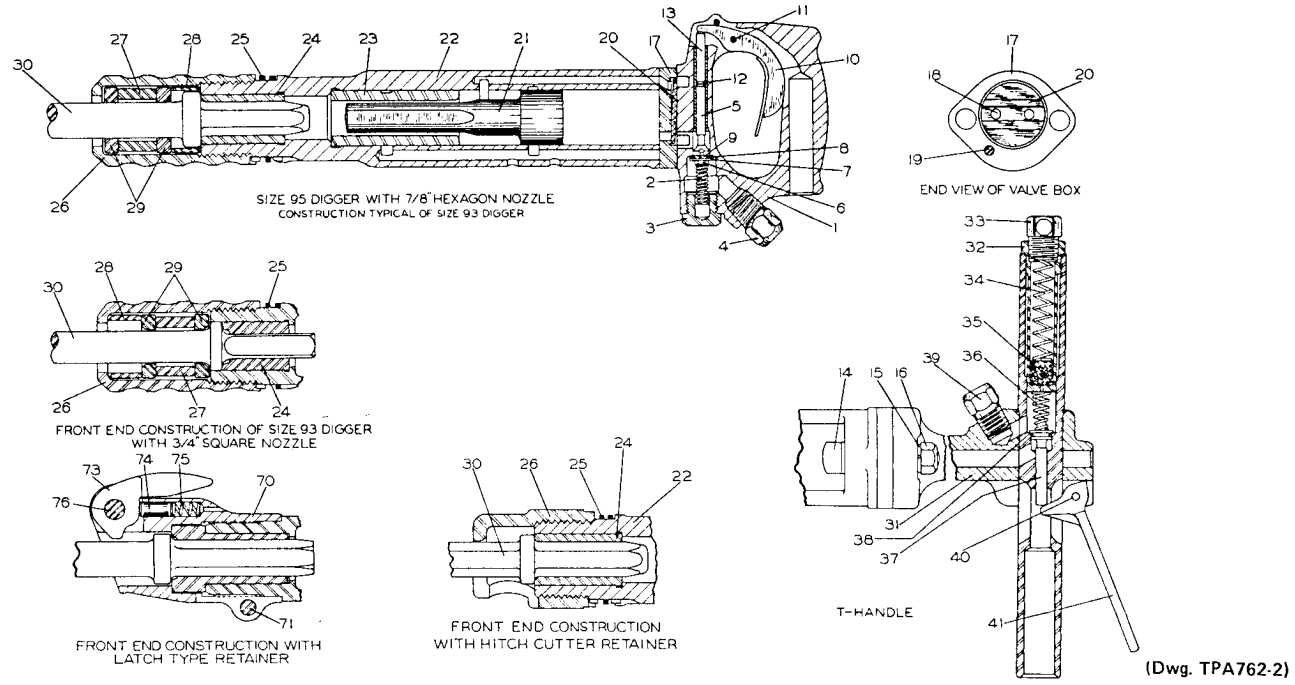
Install a new 7/8" Hexagon Nozzle beveled end first, counterbored end outward.

Install a new 3/4" Square Nozzle square end first, counterbored end outward.

(Continued on Page 3.)

Notice: The use of other than genuine Ingersoll-Rand replacement parts may result in decreased tool performance and increased maintenance, and may invalidate all warranties.

INGERSOLL-RAND®
PROFESSIONAL TOOLS



(Dwg. TPA762-2)

		PART NUMBER FOR ORDERING			PART NUMBER FOR ORDERING
1	Inside Trigger Handle Assembly	7500-92	• 27	Buffer	93H-50
2	Throttle Valve Spring	H80-11	• 28	Buffer Spacer	93H-31
3	Throttle Valve Cap	7500-109	• 29	Buffer Washer (2)	
4	Inlet Bushing (1/2" pipe to 3/8" pipe)	H80-82A		for accessories with hex shanks	93H-331
• 5	Throttle Valve	8000-50		for accessories with square shanks	93H-431
6	Throttle Valve Face Cap Nut	73H-158	30	Accessory (Ingersoll-Rand offers a complete line of Chisels, Flat Picks, Spades, etc. Inquire at nearest Office for types and prices.)	
7	Throttle Valve Face Cap	8000-157		T-Handle Assembly	93H-A35
8	Throttle Valve Face	8000-159A	31	Handle Assembly	157H-A36
9	Throttle Valve Face Lock Washer	H54U-352		Oiler Assembly	157H-A72
10	Throttle Lever	97MP-18	32	Oiler Body	157H-72
11	Throttle Lever Pin	13SR-265	33	Oiler Plug	157H-73
12	Throttle Valve Bushing	7500-65	34	Oiler Spring	157H-74
13	Throttle Valve Plunger	7500-64	35	Oiler Felt	157H-71
14	Handle Bolt (2)	A-9	36	Throttle Valve Spring	TAA-418
15	Handle Bolt Lock Washer (2)	H80-67	• 37	Throttle Valve Assembly	159H-53
16	Handle Bolt Nut (2)	H3R-8	38	Throttle Valve Face	PS3-51
17	Valve Box		39	Inlet Bushing (1/2" to 3/8" pipe)	H80-82A
	for Series 93	73H-41	40	Throttle Lever Pin	13SR-264
	for Series 95	75H-41	• 41	Throttle Lever	158H-66
18	Valve Dowel (2)	73H-45			
19	Valve Box Dowel	73H-21		**LATCH TYPE RETAINER PARTS**	
20	Valve				
	for Series 93	730H-40	†	Fronthead Assembly for accessories with 1-3/8", 1-1/2" or 1-5/8" diameter collar (35, 38 or 41 mm)	
	for Series 95	33SR-40		for tools with 7/8" hex x 3-1/4" Nozzle	95L-A240
★ • 21	Piston			for tools with 1" hex x 4-1/4" Nozzle	95L-A340
	for Series 93	93H-200	70	Fronthead	
	for Series 95	95H-200		for tools with 7/8" hex x 3-1/4" Nozzle	95L-240
22	Barrel Assembly			for tools with 1" hex x 4-1/4" Nozzle	95L-340
	for Series 93		71	Fronthead Pinch Bolt	21-342
	with 7/8" hex Nozzle	93H-AH100	*	Pinch Bolt Nut (ESNA # 29NE-083 Stop Nut)	D02-904
	with 1" hex Nozzle	93H-AH100-1	73	Retaining Lever	95L-341
	with 3/4" Square Nozzle	93H-AS100	74	Retaining Lever Plunger	73L-245
	for Series 95		75	Retaining Lever Plunger Spring	95L-246
	with 7/8" hex Nozzle	95H-AH100	76	Retaining Lever Pin	95L-342
	with 1" hex Nozzle	95H-AH100-1			
★ 23	Barrel Bushing				
	for Series 93	73H-101			
	for Series 95	95H-101			
★ 24	Nozzle				
	7/8" hex	73H-86			
	1" hex	93H-186			
	3/4" Square	73H-84			
• 25	Sleeve Locking Spring	97MP-48A			
• 26	Retaining Sleeve				
	Standard Type	93H-22			
	Hitch Cutter Type	273H-22			

★ Refer to OVERSIZE PARTS on page 3 before ordering.

* Not illustrated.

• To keep downtime to a minimum, it is desirable to have on hand certain repair parts. We recommend that you stock one (pair or set) of each part indicated by a bullet (•) for every four tools in service.

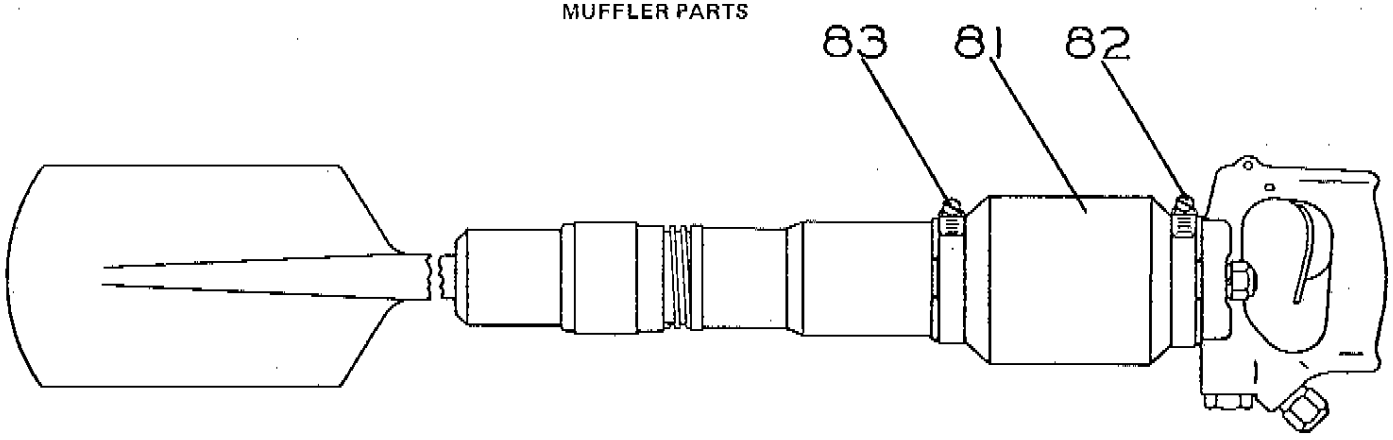
† Complete assemblies are interchangeable with discontinued 93L-A140 and 93L-A240; however, component parts differ from those in the previous models and are not interchangeable. New Frontheads are stamped 95L-240 or 95L-340 for positive identification.

		PART NUMBER FOR ORDERING
21	Oversize Piston	
	.010" oversize	
	for Series 93	93H-200-10
	for Series 95	95H-200-10
24	Oversize Nozzle	
	1" Hexagon	
	.001" oversize	93H-186-10
	.002" oversize	93H-186-20

Piston (21): If the barrel bore becomes sufficiently worn to require an oversize Piston, the Barrel (22) must be returned to the factory for regrinding and installation of an oversize Barrel Bushing (23). A reground Barrel is stamped "10" or "20" above the nameplate to respectively indicate .010" or .020" oversize. Use only the corresponding oversize Piston in a stamped Barrel.

A Nozzle (24) whose outside diameter is .001" or .002" oversize can be furnished as a repair part. Do not increase the oversize each time the Nozzle is replaced, but only as the fit warrants it. Do not increase the oversize by more than .001" at any time. The amount of oversize is etched on the Nozzle for easy identification.

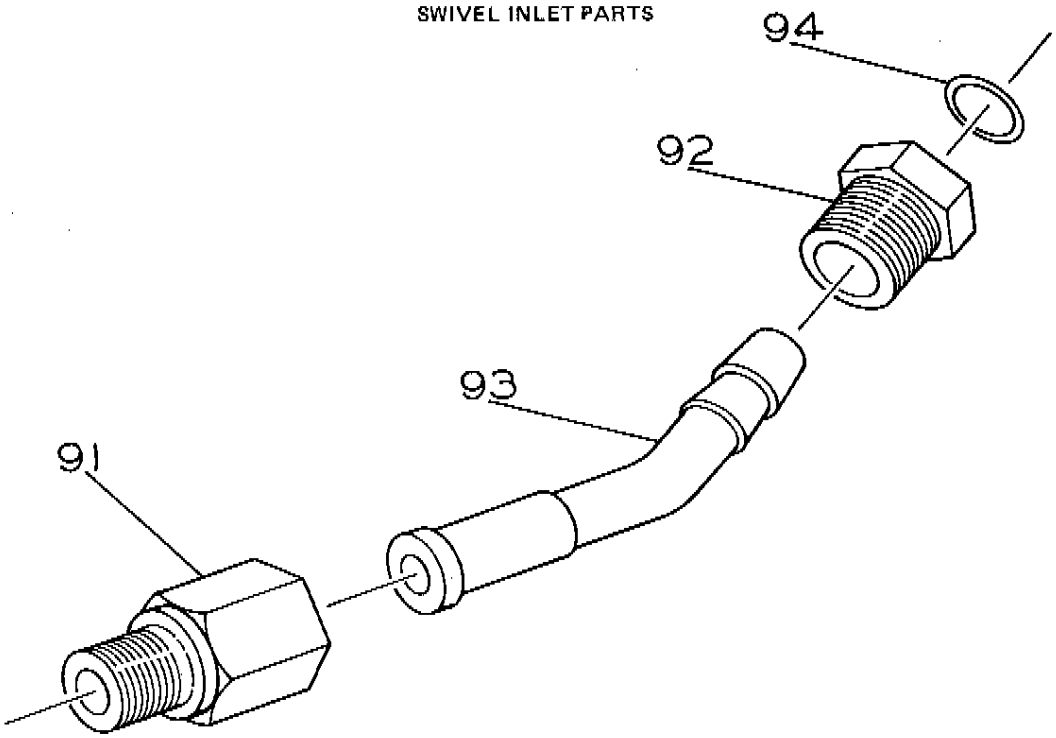
MUFFLER PARTS



(Dwg. TPD431-1)

		PART NUMBER FOR ORDERING	
		Series 93	Series 95
	Muffler Kit	93H-K674	95H-K674
81	Muffler (2)	73H-674	75H-674
82	Large Clamp	59H-675	59H-675
83	Small Clamp	HHW1-676	HHW1-675

SWIVEL INLET PARTS



(Dwg. TPD931)

		PART NUMBER FOR ORDERING
	Swivel Inlet Assembly	HH1-A165
91	Reducing Bushing	HH1-165
92	Swivel Inlet Sleeve	HH1-166
93	Swivel Inlet Nipple	HH1-167
94	O-ring	R00BR-210

MAINTENANCE TOOLS

TOOL NUMBER FOR ORDERING	TOOL NAME FOR ORDERING	OPERATION
MT2-27	Socket Wrench	Removing or applying the Handle Bolt Nuts (16).
57H-119	Nozzle Ejecting Arbor	Removing the Nozzls (24) from the Barrel (22).