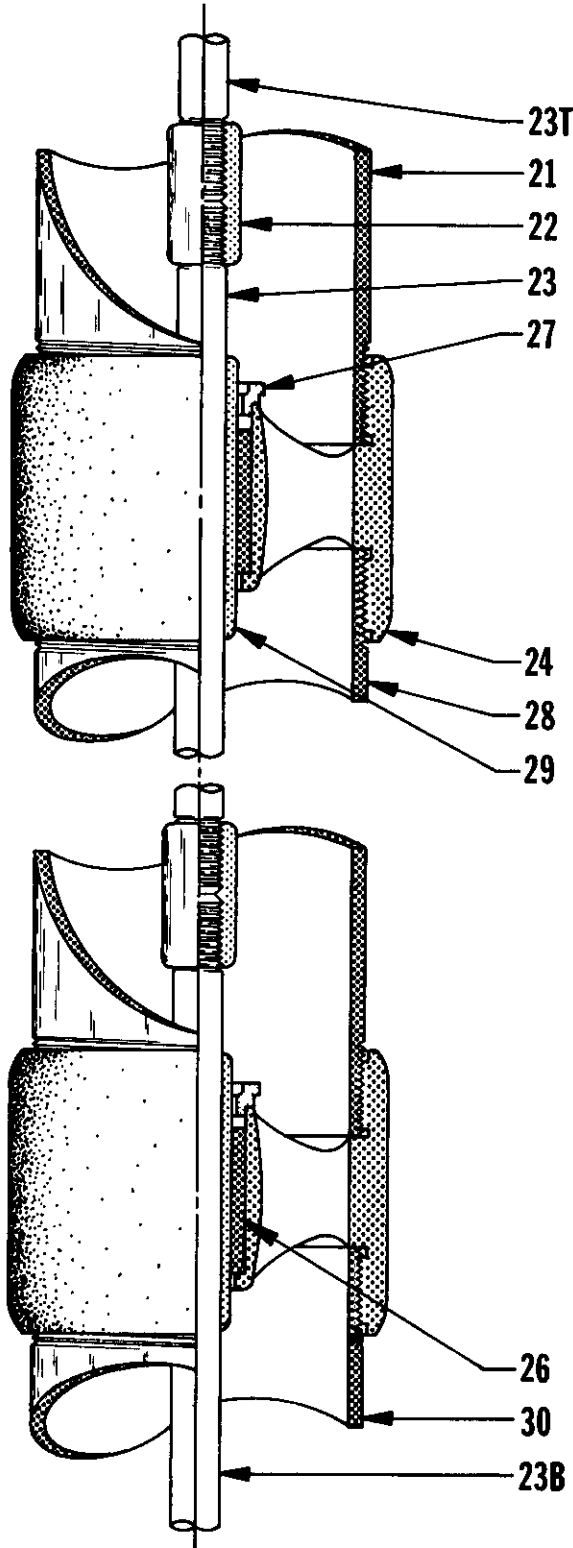




A Marley Company  
 LAYNE & BOWLER, INC.  
 MEMPHIS, TENN. 38108

SECTIONAL DRAWING  
**LAYNE OPEN LINE SHAFT COLUMN**  
 8 x 2-3/16 THRU 12 x 2-7/16

SECTION: 9100  
 DWG. NO.: 8511-C01B  
 DATE: SEPT. 1, 1982  
 SUPERSEDES: SEPT., '81



ITEM NO.	PART NAME	MATERIAL	
		STD	OPTIONAL
518	COLUMN ASSY	---	
21	TOP PC COL PIPE	STEEL	
22	LINE SHAFT COUPLING	STEEL	
23	LINE SHAFT	STEEL	
23B	BOT PC LINE SHAFT	STEEL	
23T	TOP PC LINE SHAFT	STEEL	
24	COL COUPLING	C1CL30	
26	BEARING, LINE SHAFT	RUBBER	
27	LOCK RING	BRONZE	
28	COLUMN PIPE	STEEL	
29	SHAFT SLEEVE	304 SS	
30	BOT PC COL PIPE	STEEL	

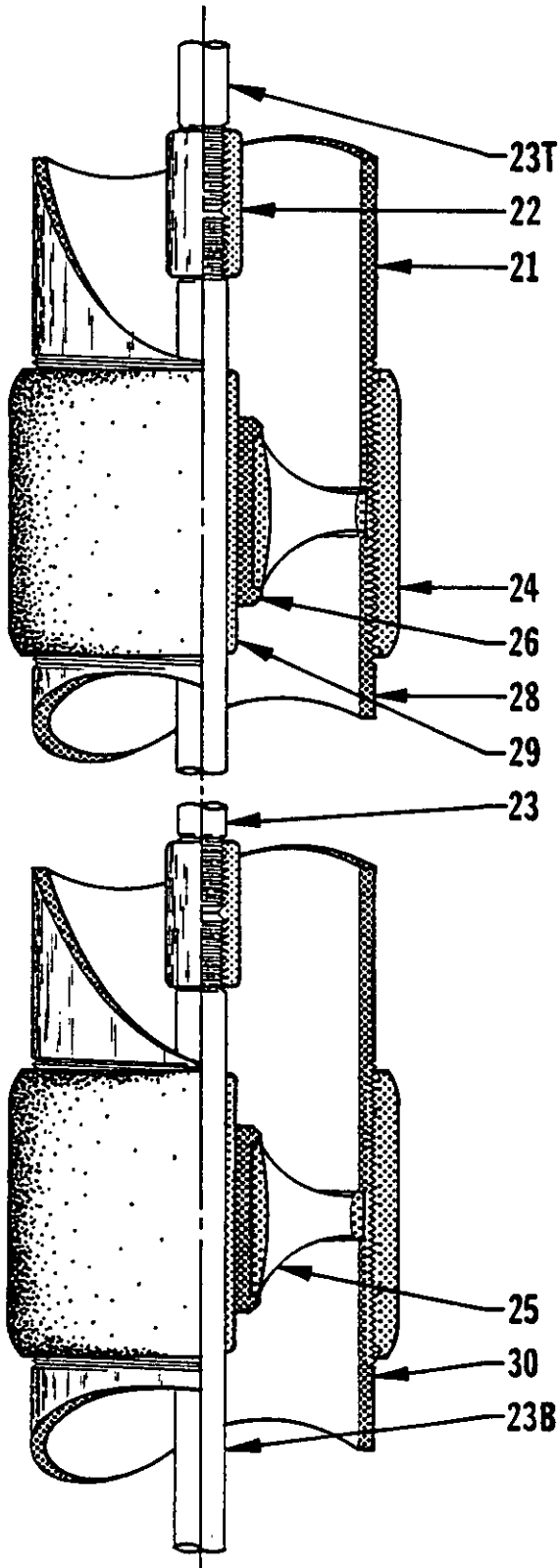
NOTE. THIS DRAWING ALSO COVERS INACTIVE CONSTRUCTION ON SIZES 4 x 7/8 THRU 14 x 2-15/16.



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# SECTIONAL DRAWING SLEEVE TYPE OPEN LINE SHAFT COLUMN

SECTION: 9100  
 DWG. NO.: 8511-C02A  
 DATE: MAY 5, 1989  
 SUPERSEDES: SEPT. '81



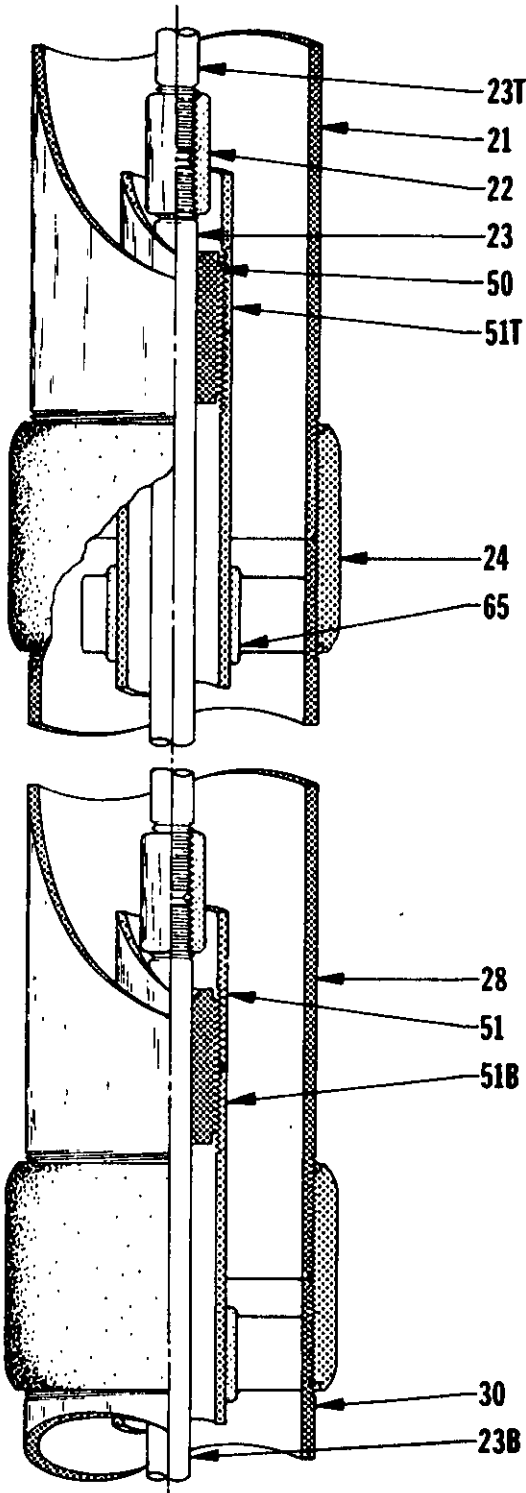
ITEM NO.	PART NAME	MATERIAL	
		STO.	OPTIONAL
518	COLUMN ASSY.		
21	TOP PC. COL. PIPE	STEEL	
22	LINE SHAFT COUPLING	STEEL	
23	LINE SHAFT	STEEL	
23B	BOT. PC. LINE SHAFT	STEEL	
23T	TOP PC. LINE SHAFT	STEEL	
24	COL. COUPLING	DUCTILE CI	
25	SPIDER	BRONZE	
26	BEARING, LINE SHAFT	RUBBER	
27	LOCK RING	BRONZE	
28	COLUMN PIPE	STEEL	
29	SHAFT SLEEVE	304 SS	
30	BOT. PC. COL. PIPE	STEEL	



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 MEMPHIS, TENN. 38108

**SECTIONAL DRAWING**  
**SLEEVE TYPE**  
**ENCLOSED LINE SHAFT COLUMN**  
 3 x 7/8 x 1-1/4 THRU 12 x 2-7/16 x 3-1/2

**SECTION:** 9100  
**DWG. NO.:** 8511-C05A  
**DATE:** SEPT. 15, 1981  
**SUPERSEDES:** SEPT. '79



ITEM NO.	PART NAME	MATERIAL	
		STD.	OPTIONAL
518	COLUMN ASSY	----	
21	TOP PC. COL. PIPE	STEEL	
22	LINE SHAFT COUPLING	STEEL	
23	LINE SHAFT	STEEL	
23B	BOT. PC. LINE SHAFT	STEEL	
23T	TOP PC. LINE SHAFT	STEEL	
*	24	COL. COUPLING	STEEL ▲
	28	COLUMN PIPE	STEEL
	30	BOT. PC. COL. PIPE	STEEL
	50	LINE SHAFT BEARING	BRONZE
	51	ENCLOSING TUBE	STEEL
	51B	BOT. PC. ENCL. TUBE	STEEL
	51T	TOP SPL. TUBE	STEEL
◆	65	SPIDER	RUBBER

▲ MAT'L. FOR 10 & 12 COL. SIZES IS DUCTILE IRON.

\* OPTIONAL MAT'L. C.I.CL30 FOR 6 & 8 COL. SIZES.

◆ NO. OF SPIDERS FURNISHED BASED ON THE FOLLOWING TOTAL COLUMN LENGTH AND SPACING: (NONE FURNISHED WITH 3" COL.)

1. 0 TO 40' - NONE FURNISHED EXCEPT WHEN FACTORY ASSEMBLED - THEN ONE FURNISHED WHEN THERE IS AT LEAST TWO TUBE SECTIONS.
2. 40' & BEYOND - ONE 20' FROM BOWL AND:
  - a. LENGTHS EVENLY DIVISIBLE BY 40 - 40' INTERMEDIATE SPANS WHICH PLACES ONE 20' FROM HEAD.
  - b. LENGTHS EVENLY DIVISIBLE BY 20 BUT NOT BY 40 - 40' INT. SPANS, ONE 20' INT. SPAN WHICH PLACES ONE 20' FROM HEAD.
  - c. LENGTHS EVENLY DIVISIBLE BY 10 BUT NOT BY 20 OR 40 - 40' INT. SPANS WHICH LEAVES ONE EITHER 10' OR 30' FROM HEAD.