

## INTRODUCTION

### LINERS

When it comes to mud pump fluid end expendable parts, TSC Manufacturing and Supply, LLC. has it all.

TSC mud pump liners are designed and manufactured to meet or exceed original equipment specification and API standards for almost all types of mud pumps in use today. With advanced technology, metallurgical control and rigid inspection, we offer unmatched performance and durability according to customer testimonies in the most severe drilling conditions, both triplex and duplex liners are available in a wide range of sizes.

### HIGH CHROME SLEEVE LINER

The outer hull, or body, of the liner is manufactured using high-strength forging. TSC uses forgings exclusively to ensure consistent quality. The sleeve is centrifugally cast in the TSC facilities by skilled craftsmen. It has the maximum amount of chrome for the base metal and TSC adds molybdenum to increase the hardness depth. The sleeve is then inserted into the hull at a tightness that exceeds its counterparts. The TSC liner is rated to match the pressure rating of the pump per liner size.

**TSC mud pump liners are unsurpassed in quality and reliability.**

#### Features

- Rated for all drilling operations.
- Bore hardness is 62-69 Rockwell.
- "HP" lip design to prevent inner sleeve slippage.
- Extremely long service life.



### CHROME-PLATED LINER

TSC chrome-plates the same outer hull in lieu of the sleeve to maximum thickness. The hulls are then machined and polished to a mirror finish.

## FLUID END EXPENDABLES

EMSCO

FC-1600

7 x 12

	LINERS		ZIRCONIA LINERS	LINER GASKETS	PISTONS				PISTON RUBBER
SIZE	PART NUMBER		PART NUMBER	PART NUMBER	URETHANE BONDED	RUBBER BONDED	N'DURALL BONDED	REPLACEABLE RUBBER	PART NUMBER
4"	TS-2145-40HP		TS-07499400	G-800 *	LLU-40-K15	LL-40-K15	HPW-40-K15	I-40-K15	TM-40-KR
4 1/2"	TS-2145-44HP		TS-07499450	G-800 *	LLU-44-B15	LL-44-B15	HPW-44-B15	I-44-B15	TM-44-BR
5"	TS-2145-50HP		TS-07499500	G-800 *	LLU-50-B15	LL-50-B15	HPW-50-B15	I-50-B15	TM-50-BR
5 1/2"	TS-2145-54HP		TS-07499550	G-800 *	LLU-54-B15	LL-54-B15	HPW-54-B15	I-54-B15	TM-54-BR
5 3/4"	TS-2145-56HP		TS-07499575	G-800 *	LLU-56-B15	LL-56-B15	HPW-56-B15	I-56-B15	TM-56-BR
6"	TS-2145-60HP		TS-07499600	G-800 *	LLU-60-B15	LL-60-B15	HPW-60-B15	I-60-B15	TM-60-BR
6 1/4"	TS-2145-62HP		TS-07499625	G-800 *	LLU-62-L15	LL-62-L15	HPW-62-L15	I-62-L15	TM-62-LR
6 1/2"	TS-2145-64HP		TS-07499650	G-800 *	LLU-64-L15	LL-64-L15	HPW-64-L15	I-64-L15	TM-64-LR
6 3/4"	TS-2145-66HP		TS-07499675	G-800 *	LLU-66-L15	LL-66-L15	HPW-66-L15	I-66-L15	TM-66-LR
7"	TS-2145-70HP		TS-07499700	G-800 *	LLU-70-L15	LL-70-L15	HPW-70-L15	I-70-L15	TM-70-LR
VALVES, SEATS, SPRINGS							GASKETS		
	4 WEB DESIGN		3 WEB DESIGN	FULL OPEN (1)	FULL OPEN (2)			PART NUMBER	
VALVE	TS-7-EEF		TS-202482	TS-0985M	TS-7-V1	VALVE COVER GASKET		G-741 *	
SEAT	TS-7-DDB1		TS-202039	TS-1370M	TS-7-S1	WEAR PLATE GASKET		TS-6316-0565-00	
SPRING	TS-5710-115		-	TS-0702M	TS-5710-115L	EXTENSION ROD SEAL		TS-7602-2132-76	
INSERT (Urethane)	TS-7-WI		TS-201PZL106	TS-7-MI	TS-7-FI	EXTENSION ROD BAFFLE		TS-6316-0093-00	
INSERT (Rubber)	TS-7-WR		TS-202PZL106	-	-	-		-	
PISTON ROD & EXTENSION ROD									
ROD CLAMP	PISTON ROD STUD	PISTON NUT	THREADED TYPE PISTON ROD	CLAMP TYPE PISTON ROD	SUB ROD	THREADED TYPE EXTENSION ROD		CLAMP TYPE EXTENSION ROD	
TMFB6-03-08	N/A	TM-NUT	N/A	TM-2145	N/A	N/A		TMFB6-01-06	
FLUID END MODULE									
SUCTION MODULE STUDD		DISCHARGE MODULE STUDD		MODULE SEAL SET		STUDS & NUTS SET			
TS-6316-0611-00		TS-6316-0610-01		TMFC16-SEALKIT		TMFC16-STUDSETS TMFC16-STUDSETD			

TSC does not warrant or represent that any of such information is accurate, or that any products listed are compatible with each other.  
Any deviations from the OEM products should be verified as to compatibility.

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