

## 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

EWECO

E-447

6 x 7

	LINERS		LINER GASKETS	PISTONS				PISTON RUBBER
SIZE	PART NUMBER		PART NUMBER	URETHANE BONDED	RUBBER BONDED	N'DURALL BONDED	REPLACEABLE RUBBER	PART NUMBER
4"	TS-E447-40HP		G-6316 *	LLU-40-B15	LL-40-B15	HPW-40-B15	I-40-B15	TM-40-BR
4-1/2"	TS-E447-44HP		G-6316 *	LLU-44-B15	LL-44-B15	HPW-44-B15	I-44-B15	TM-44-BR
5"	TS-E447-50HP		G-6316 *	LLU-50-B15	LL-50-B15	HPW-50-B15	I-50-B15	TM-50-BR
5-1/2"	TS-E447-54HP		G-6316 *	LLU-54-B15	LL-54-B15	HPW-54-B15	I-54-B15	TM-54-BR
6"	TS-E447-60HP		G-6316 *	LLU-60-B15	LL-60-B15	HPW-60-B15	I-60-B15	TM-60-BR
6-1/2"	TS-E447-64HP		G-6316 *	LLU-64-K15	LL-64-K15	HPW-64-K15	I-64-K15	TM-64-KR
VALVES, SEATS, SPRINGS						GASKETS		
	4 WEB DESIGN		3 WEB DESIGN	FULL OPEN ( 1 )	FULL OPEN ( 2 )			PART NUMBER
VALVE					TS-5-V1	VALVE COVER		G-826 *
SEAT					TS-5-S1	CYLINDER HEAD		G-830 *
SPRING					TS-5710-111	EXTENSION ROD SEAL		
INSERT (Urethane)					TS-5-FI	EXTENSION ROD BAFFLE		
INSERT (Rubber)								
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
		TM-NUT						
FLUID END MODULE								
SUCTION MODULE STUDD		DISCHARGE MODULE STUDD		MODULE SEAL SET		STUDS & NUTS SET		

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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