

## 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

TSC

WFU450

6 x 8-1/2

	LINERS		LINER GASKETS	PISTONS			PISTON RUBBERS
SIZE	PART NUMBER	PART NUMBER	URETHANE BONDED	RUBBER BONDED	N'DURALL BONDED	REPLACEABLE RUBBER	PART NUMBER
3 1/2"	TS-0189-34HPA	G-266 *	-	-		I-34-K15	TM-34-KR
4"	TS-0189-40HPA	G-266 *	LLU-40-K15	LL-40-K15		I-40-K15	TM-40-KR
4 1/2"	TS-0189-44CrA	G-266 *	LLU-44-B15	LL-44-B15		I-44-B15	TM-44-BR
<b>BIG OD</b>							
4 1/2"	TS-0193-44HPA	G-266 *	LLU-44-B15	LL-44-B15		I-44-B15	TM-44-BR
5"	TS-0193-50CrA	G-266 *	LLU-50-B15	LL-50-B15		I-50-B15	TM-50-BR
5 1/2"	TS-0193-54CrB	G-266B	LLU-54-B15	LL-54-B15		I-54-B15	TM-54-BR
6"	TS-0193-60CrB	G-266B	LLU-60-B15	LL-60-B15		I-60-B15	TM-60-BR
<b>VALVES, SEATS, SPRINGS</b>					<b>GASKETS</b>		
	4 WEB DESIGN	3 WEB DESIGN	FULL OPEN (1)	FULL OPEN (2)			PART NUMBER
VALVE	-	TS-PJ-482A	-	TS-4-V1	<b>VALVE COVER GASKET</b>		G-799 *
SEAT	-	TS-PJ-451	-	TS-4-S5	<b>CYLINDER HEAD GASKET</b>		G-799 *
SPRING	-	TS-5710-33	-	TS-5710-33	<b>WEAR PLATE GASKET</b>		N/A
INSERT (Urethane)	-	TS-PJ-452	-	TS-4-FI	<b>EXTENSION ROD SEAL</b>		WF-2011872
INSERT (Rubber)	-	-	-	-	<b>EXTENSION ROD BAFFLE</b>		TS-5FXK840
<b>PISTON ROD &amp; EXTENSION ROD</b>							
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
TMPZ9-03-08	TS-PP1005294	TM-NUT	TM-U400-AU	TM-193A	TM-U400-BU	-	TMPZ8-01-06
<b>FLUID END MODULE</b>							
<b>FLUID END MODULE STUDED</b>				<b>MODULE SEAL SET</b>		<b>STUDS &amp; NUTS SET</b>	
TS-200PJH029BUS				TMPAH-SEALKIT		TMPAH-STUSET	

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.

TSC Manufacturing and Supply LLC, 13788 West Road, Suite 100, Houston, Texas 77041, USA  
Tel: +1 832 456 3900 Fax: +1 832 456 3998 E-mail: sales@t-s-c.com