## 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 at 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.

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

# **FLUID END EXPENDABLES**

HONGHUA HHF-1600 7 x 12

	LINERS		ZIRCONIA LINERS		LINER GASKETS	PISTONS				PISTON RUBBERS
SIZE	TSC PART NUMBER		PART NUMBER		TSC 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-0749	9675	G-800 *	LLU-66-L15	LL-66-L15	HPW-66-L15	I-66-L15	TM-66-LR
7"	TS-2145-	70HP	TS-0749	9700	G-800 *	LLU-70-L15	LL-70-L15	HPW-70-L15	I-70-L15	TM-70-LR
	HONGHUA PART NUMBER		3161- 21~26	11-	3161-0514				11-3161-0524-00	
VALVES, SEATS, SPRINGS								GASKETS		
			4 WEB DESIGN		JLL OPEN	HONGHUA PART NUMBER			TSC PART NUMBER	HONGHUA PART NUMBER
VA	VALVE		TS-7-EEF		TS-7-V1	11-3161-0511-01	VALVE COVER GASKET		G-741 *	11-3161-0512
SEAT		TS-7	TS-7-DDB1		TS-7-S1	11-3161-0511-06	CYLINDER HEAD GASKET		G-801 *	11-3161-0508
SPRING		TS-5710-115		TS	5710-115L 11-3161-0510		WEAR PLATE GASKET		G-800 *	11-3161-0514
INSERT (Urethane)		TS-7-WI		TS-7-FI	11-3161-0511-05					
PISTON ROD & EXTENSION ROD										
			ROD CLAMP			PISTON NUT	PISTON ROD		EXTENSION ROD	
	PART MBER		TMFB6-03-		08	TM-NUT	TM-NUT TM-2145		TMF16-01-06	
	HUA PART MBER		11-3161-052		2-00	11-3161-0532-00	11-3161-0518		11-3161-0412	
FLUID END MODULE										
		FLUID END MODULE STUDDED			E STUDDED	MODULE SEAL SET			STUDS & NUTS SET	
TSC PART NUMBER		TS-6316-0357			7-00B	TMFB6-SEALKIT		TMBJ16-STUDSET		
	HONGHUA PART NUMBER		11-3161-0501-00							

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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