



ITEM NO.	DESCRIPTION	QTY.
1	SPDL HEAD MACH TL-3B	1
2	SPINDLE CARTRIDGE	1
3	SEAL RING	1
4	SPROCKET DRIVEN SPINDLE	1
5	NOZZLE OIL MIST TL-3B	2
6	BUTTON DRIVE A15	2
7	A2-15 SHAFT LEFT	1
8	PLUG, SPINDLE HEAD	1
9	GASKET SPDL HEAD PLUG TL-3B	1
10	FITG LBO-1/4 X NPT-1/8-M X 90 AIR ONLY	2
11	O RING 2-386 BUNA	1
12	SHCS 1/2-13 X 1 1/2 DOMESTIC ONLY	2
13	SHCS 5/16-18 X 1 1/4 DOMESTIC ONLY	8
14	SHCS 3/8-16 X 1 1/4	12
15	FHCS 8-32 X 3/8	2
16	OIL GEAR PUMP ASSY TL-3W	1
17	BRACKET, ENCODER SPRING MOUNT	1
18	MOTOR SHROUD	1
19	SPACER .281ID 1/2OD .60LG	3
20	FBHCS 8-32 X 3/8	2
21	WASHER 1/4 HARD 1/4ID X 5/8OD X 1/8 THK	11
22	HAAS MAGNETIC ENCODER	1
23	ENCODER BEARING SUPPORT	1
24	TIMING SPROCKET, ENCODER	1
25	HAAS MAGNETIC ENCODER (SHAFTED)	1
26	CLAMP COLLAR 3/4 BORE 1 1/2 OD	1
27	DRV BELT HTD 3MX9 445-3M-09	1
28	DRV BELT PCGT 8MGT-2400-21	3
29	SHCS 10-32 X 1 1/2	1

SHEET 1 OF 1

DESCRIPTION	EFFECTIVE DATE
TL-3B SPINDLE ASSY 650 RPM	NOV-2009

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