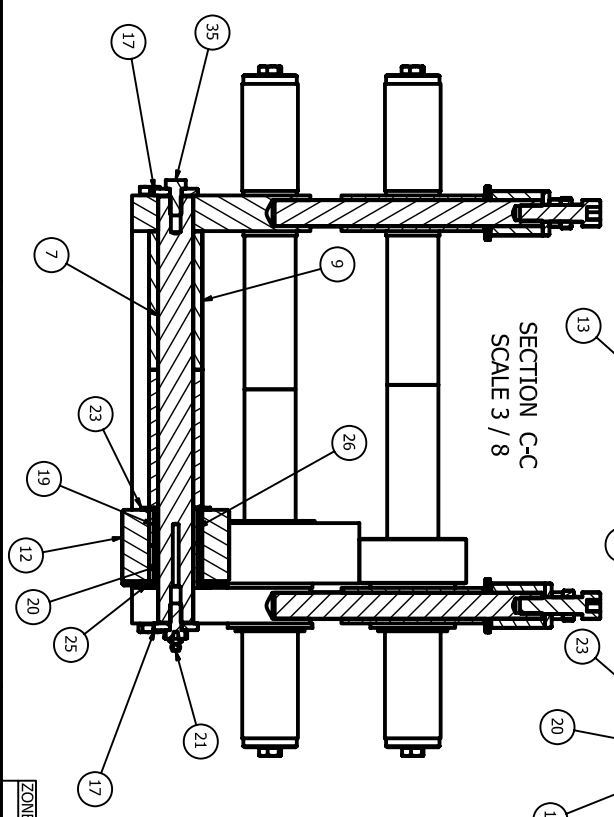


SECTION C-C
SCALE 3 / 8

SECTION A-A
SCALE 1 / 2

NOTES:
1. OMIT THIS PART WHEN TOOLING IS USED INBOARD
2. OMIT THIS PART WHEN TOOLING IS USED OUTBOARD
3. ADD (32) 511196 THRUST RACE (TRC2031) WHEN NO TOOLING IS ON GEAR SIDE.



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	11899	BOTTOM SPINDLE HOUSING - GEAR SIDE
2	8	9821	UPPER BEARING CAGE
3	16	4167-10	SPINDLE HOUSING POST
4	2	4172	LOWER SPREADER
5	29	9452	SPINDLE - ROLLER DIE
6	3	9453	SPINDLE - TDF BOTH OUTBOARDS 9, 15, 168
7	2	11714	TRANSFER IDLER SHAFT
8	12	9512	IDLER SHAFT
9	4	11715	TRANSFER IDLER SHAFT SPACER
10	32	9307-2	SPACER - SPINDLE O.B. (SEE NOTE 2)
11	48	11720	SPACER - SPINDLE INBOARD (SEE NOTE 1)
12	1	11712-1	TRANSFER IDLER GEAR
13	1	11899-1	BOTTOM SPINDLE HOUSING - NON GEAR SIDE
14	16	4156-8	GEAR - LOWER SPINDLE
15	16	11711	GEAR - UPPER SPINDLE
16	12	11712	GEAR - IDLER
17	16	511195	END CAP WASHER (4219-1)
18	64	511138	END CAP WASHER (4219-2)
19	2	511019-H	INNER RACE HONED (IR162016)
20	14	511076-H	INNER RACE (IR162020)
21	14	4165-1	GREASE BOLT
22	64	511125	THRUST RACE (TTS94--2)
24	16	1075934-5	POST SPACER
25	2	511196	THRUST RACE (TRC2031)
26	16	511018	NEEDLE BEARING (B2016)
27	64	511121	NEEDLE BEARING (B2416)
28	32	511098-H	HONED INNER RACE (IR202420)
29	32	511110-H	HONNED INNER RACE (IR202416)
30	32	571008	DISC SPRING (2-16)
31	16	HH4161	SPRING PIN (1/4 X 1 LG.)
32	32	4170	WOODRUFF KEY (808)
33	128	4171	WOODRUFF KEY (607)
34	AR	514084	SPROCKET (50 CYCLE MOTOR) 1 1/2 B 3/8 K (D60828)
35	66	ABB206075	BOLT 3/8-24 X 3/4 LG. HHCS
36	8	ABB206015	BOLT 3/8-24 X 1 1/2 LG. HHCS
37	16	513095	END CAP WASHER (4219-21)
38	16	BBA2080175	BOLT 1/2-20 X 1 3/4 LG. SHCS
39	64	ANF208Z	HEX JAM NUT 1/2-20
40	16	ABB20806FT	TAP BOLT 1/2-20 X 6 LG. TAP BOLT
44	16	4156-8	IDLER GEAR
45	16	11901	SPACER SPINDLE INBOARD - LOWER (SEE NOTE 1)

ZONE	REV	DESCRIPTION	REVISION HISTORY	ECO	DATE	AUTHOR

NORMAL TOLERANCES (UNLESS OTHERWISE SPECIFIED)	
REMOVE ALL SHARP EDGES AND BURRS	
INSIDE & OUTSIDE CORNERS - .0156(1/32) R30/761 RADIUS	
CHAMFER ALL HOLES/THREADS - .0156(1/32) R58/761 X	
ALL DIMENSIONS IN INCHES, METRIC EQUIVALENT IN BRACKETS (mm)	
FINISH: .xxx	±.0007 (±.016)
FINISH: .xxx	±.0007 (±.016)
FINISH: .xxx	±.0007 (±.016)
FINISH: .xxx	±.0007 (±.016)
FINISH: .xxx	±.0007 (±.016)
FINISH: .xxx	±.0007 (±.016)

TITLE BLOCK	DATE: 3/1/2005
DRAWN BY: INDUSTRIES	CHECK BY:
SCALE: 1/4	DATE:
DESCRIPTION: SPINDLE HOUSING ASSEMBLY - 1640	SCALE:
DWG. NO./NAME: 11900	SCALE:

