

# Rotary Lock

▪ LOCKS SHAFT RIGIDLY

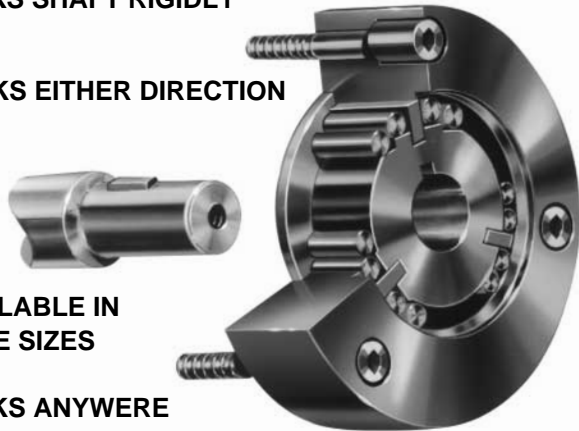
▪ LOCKS EITHER DIRECTION

▪ AVAILABLE IN FIVE SIZES

▪ LOCKS ANYWHERE IN 360°

▪ HARDENED STEEL CONSTRUCTION

▪ EASILY ADAPTABLE TO SPECIAL TOOLING MACHINES, FIXTURES

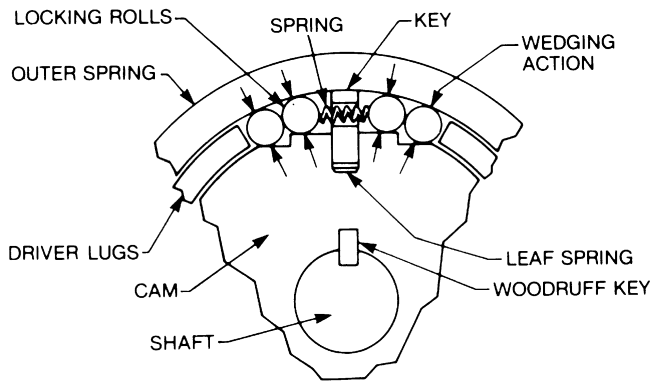


## OPERATION

### FOR POSITIVE ROTATIONAL POSITIONING/AUTOMATIC LOCKING OPERATION

E & E Rotary Locks rigidly lock any shaft in position without creeping, and are capable of holding tremendous torque loads. The basic functional feature of the E & E Rotary Lock is that a shaft to which it is attached is always in a locked condition, unable to turn in either direction unless actuated through the Rotary Lock.

The Rotary Lock can easily be unlocked and the shaft rotated to any new position by operating a hand lever or other mechanical means. Then it will automatically lock again when the hand lever is released.



### HANDLE ORDERING INFO

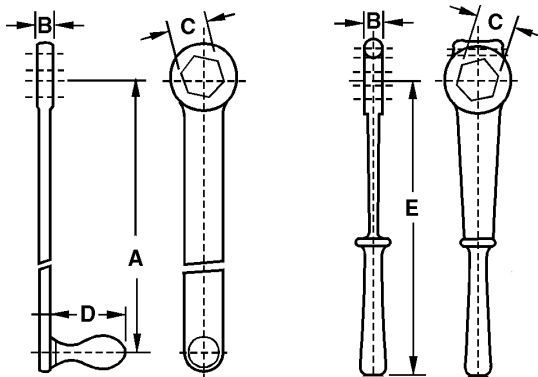
#### SPECIFY TYPE:

LNW = Lock, No Wrench  
 LPW = Lock, Plain Wrench  
 LCW = Lock, Clamp Wrench

#### EXAMPLE:

EE-581-LPW

### 5 ROTARY LOCK SIZES

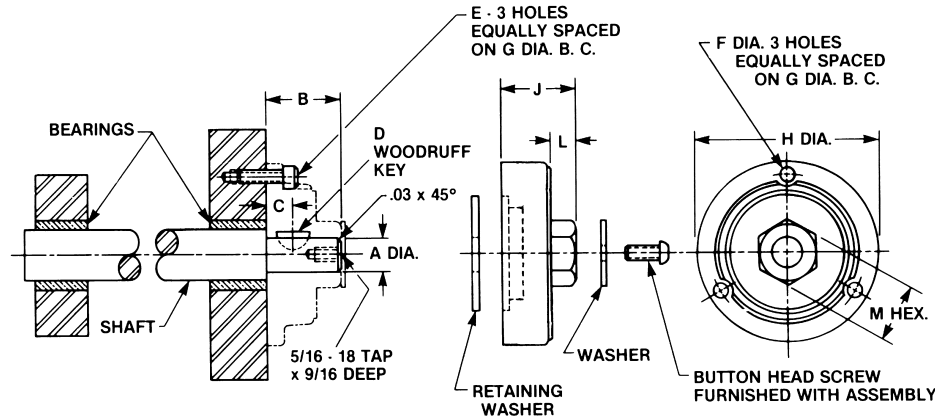


PLAIN WRENCH

CLAMP WRENCH

PART NUMBERS	A	B	C	D	E
EE581	6	15/32	1-5/64	2-3/8	8
EE681	6-3/4	9/16	1-9/32	3-1/4	10-1/2
EE781	8	21/32	1-15/32	3-1/4	12-1/2
EE881	9	3/4	1-21/32	4-1/8	14
EE1081	11-11/16	15/16	2-1/32	4-1/8	17

## DIMENSIONAL & INSTALLATION DATA



Linear/Rotary Motion

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CAD FILE NAME	PART NUMBER	MIN. SHAFT DIA.	DIMENSIONS										
			A	B	C	D	E	F	G	H	J	L	M
2dwg 3dwg STP EE581	EE581	5/8	.6250 .6240	1-3/8	7/16	405	5/16-18	11/32	2-5/8	3-1/4	1-3/8	15/32	1-1/16
2dwg 3dwg STP EE681	EE681	3/4	.7500 .7495	1-19/32	15/32	506	5/16-18	11/32	3-3/8	4	1-19/32	9/16	1-1/4
2dwg 3dwg STP EE781	EE781	7/8	.8750 .8745	1-7/8	17/32	507	3/8-16	13/32	3-3/4	4-1/2	1-7/8	21/32	1-7/16
2dwg 3dwg STP EE881	EE881	1	1.0000 .9995	1-31/32	17/32	607	3/8-16	13/32	4-1/2	5-1/4	1-31/32	3/4	1-5/8
2dwg 3dwg STP EE1081	EE1081	1-1/4	1.2500 1.2495	2-5/16	5/8	807	7/16-14	15/32	5-1/8	6	2-5/16	15/16	2

### NOTES:

- Shaft material should be of a high-yield strength variety to take full advantage of locking potential of lock.
- Socket head cap screws recommended for mounting locks.
- Retaining washer and buttonhead screw furnished with each lock.
- Shaft must be supported by bearings suitable for application.
- Locks designed for slow-intermittent service.
- Locks may be actuated and fitted with handles. Also may be fitted with chain sprocket, for remote operation or a wide variety of mechanical arrangements.
- End thrust of shaft must be provided for by suitable means.
- 10 RPM max.
- Rotary lock holding force will exceed the torsional shear of the shaft it is mounted to. Based on the shaft being made of material with 100,000 PSI tensile strength and one woodruff key.

### CAPACITIES

Rotary Lock Cat. No.	Woodruff Key Size	(1) Torque to shear one soft key Cat. No.	(2) Torque to shear one harden key	(3) (4) Torsional shear of high strength shaft	(3) (5) Torsional shear of medium strength shaft
581	5	110 ft. lbs.	242 ft. lbs.	1,393 ft. lbs.	905 ft. lbs.
681	8	200 ft. lbs.	441 ft. lbs.	2,415 ft. lbs.	1,569 ft. lbs.
781	10	242 ft. lbs.	613 ft. lbs.	3,836 ft. lbs.	2,493 ft. lbs.
881	11	382 ft. lbs.	829 ft. lbs.	5,737 ft. lbs.	3,729 ft. lbs.
1081	A	555 ft. lbs.	1,204 ft. lbs.	8,164 ft. lbs.	5,305 ft. lbs.

### FOOTNOTES:

- Based on an unhardened key shear of 60,000 P.S.I.
- Based on a hardened key shear of 130,000 P.S.I.
- Based on one key in shaft
- Based on a shaft material to be 100,000 P.S.I. tensile
- Based on a shaft material to be 65,000 P.S.I. tensile

Harden key material: 8630 40/50 Rc  
tensile= 175,000 P.S.I.  
shear= 131,250 P.S.I.

**Note:** Locks designed for rotation against load. NOT with load. Lock will chatter when rotating with load. Please check with our engineering department for proposed new applications.