

The background of the page is a collage of technical drawings for Acurn Caster Jacks. The drawings include side views, top views, and detail views of various components. Key features labeled in the drawings include: 'Bolt', 'SEAL', 'RETRACTED', '53 DIA.', '8 OR 12', '4 1/4 in', '2 1/2 in', '4 15/16 in', '5 1/4 in', '6 1/2 in', '3 3/4 in', '5', '4', '5', '2 1/4', '1', '4', '5 1/4', '6 1/2', '3/4', '7/8', '3 3/4', '3/8', '3:1 GEAR RATIO', '1 1/4 -4 THD. ACME SCREW', '.87 DIA.', '2 3/4', '2 5/8 SQ.', '7.00', '(REVERSIBLE RATCHET CRANK)', '9 1/2', '3 3/4', '1 1/4 -4 THD. ACME SCREW', '2 5/8 SQ.', 'A', 'RETRACTED', and 'REVERSIBLE RATCHET CRANK'. A caption 'Mounting Plate for JA Series' is also present.

# CASTER JACKS

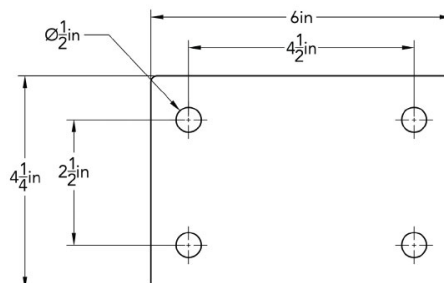


# CASTER JACKS

## 2,200 LBS. LOAD CAPACITY

### JA Series Side Winding Jacks

- Ideal for easy movement and vertical adjustment of machines and work platforms.
- All steel construction.
- 3 inch lift.
- Use a ratchet type hex spanner or use the hole provided to turn it with a Threaded Rod.



Mounting Plate for JA Series



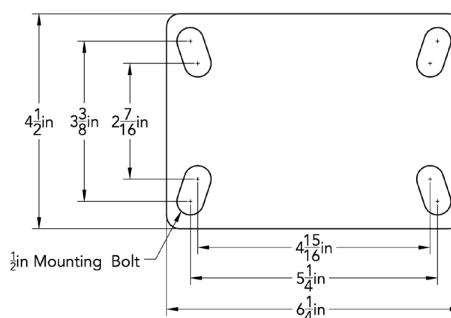
Wheel Dia. (in.)	Tread Width (in.)	Wheel Type	Load Capacity (lbs.)	Retracted Height (in.)	Amount of Lift (in.)	Part Number
6	2	Polyurethane	1650	22	3	JA-SAS-6
8	2	Polyurethane	2200	24	3	JA-SAS-8
6	2	Nylacron™	2200	22	3	JA-NY-6
8	2	Nylacron™	2200	24	3	JA-NY-8

## 1,300 LBS. LOAD CAPACITY

### JC-SW Series Side Winding Jacks

- Available with modular caster options: Swivel lock, brake, toe guard, etc. Inquire for custom options.

Mounting Plate for JC-SW Series



Wheel Dia. (in.)	Tread Width (in.)	Wheel Type	Load Capacity (lbs.)	Retracted Height (in.)	Amount of Lift (in.)	Part Number
6	2	Polyurethane	1300	23 5/8	10	JC-SW-SAS-6
8	2	Polyurethane	1300	25 5/8	10	JC-SW-SAS-8
6	2	Nylacron™	1300	23 5/8	10	JC-SW-NY-6
8	2	Nylacron™	1300	25 5/8	10	JC-SW-NY-8



# CASTER JACKS

## 7,500 LBS. LOAD CAPACITY

## FOUR-IN-ONE CASTER JACKS

## 1. Lift 2. Lower 3. Swivel 4. Roll

All FOUR-IN-ONE casterjacks can be furnished with or without the casters. Special care must be taken when selecting your caster requirement to make certain you do not exceed the maximum allowable caster size specified for each individual casterjack assembly. Usable size load capability is a factor of the rated load, overall height and the swivel offset of the caster assembly selected. Kingpinless casters with Nylacron™ wheels are recommended for all casterjacks. For application assistance, contact Acorn™.

Custom Caster Jacks Available.

Consult Acorn™ for more information and specifications.



### **7500 lbs. capacity fixed pad jack (without caster)**

# Jack Data

Part Number	Stroke	A	Weight Less Caster	Side Load (lbs.)
31038-3	3	13 <sup>3</sup> / <sub>4</sub>	41 <sup>1</sup> / <sub>2</sub>	725
31038-6	6	16 <sup>3</sup> / <sub>4</sub>	45	600
31038-12	12	22 <sup>3</sup> / <sub>4</sub>	52	450
31038-18	18	28 <sup>3</sup> / <sub>4</sub>	59	350

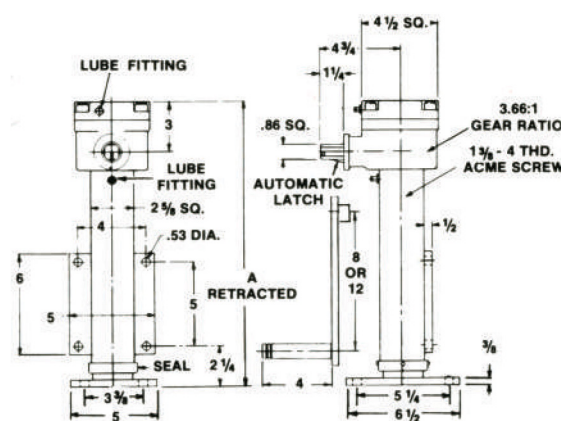
### 4000 lbs. capacity casterjack (with caster)

## Caster Data

Part Number	Maximum Capacity	Maximum Caster Height	Maximum Offset	Bolt Hole Spacing	Bolt Diameter
31038-3	4000	10 <sup>5</sup> / <sub>16</sub>	2 1/2	3 <sup>3</sup> / <sub>8</sub> x 5 1/4	1/2
31038-6	4000	10 <sup>5</sup> / <sub>16</sub>	2 1/2	3 <sup>3</sup> / <sub>8</sub> x 5 1/4	1/2
31038-12	4000	10 <sup>5</sup> / <sub>16</sub>	2 1/2	3 <sup>3</sup> / <sub>8</sub> x 5 1/4	1/2
31038-18	4000	10 <sup>5</sup> / <sub>16</sub>	2 1/2	3 <sup>3</sup> / <sub>8</sub> x 5 1/4	1/2

\* Side load capacity based on 4,000 lbs. load with jack at full extension and with caster mounted having a maximum overall height of 10<sup>5</sup>/<sub>16</sub>" and 2<sup>1</sup>/<sub>2</sub>" swivel offset. Unit must be securely fixed at point of jack side plate, and also between jack base plate and caster top plate.

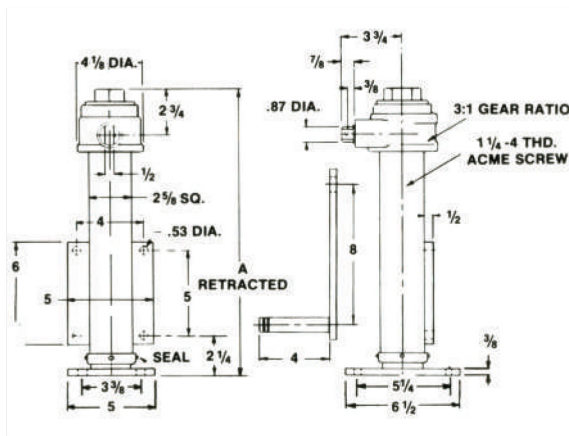
\* See basic data for 31050 jack assemblies when using unit less caster.



## Basic Data

1. 14.6 revs. input for 1 inch of stroke
2. 4000 lb. maximum operating load, compression
3. Approx. 80 inch lb. torque input at maximum operating load.
4. Specify crank: 8 inches

# CASTER JACKS



## Basic Data

1. 12 revs. input for 1 inch of stroke.
2. 4000 lb. maximum operating load, compression.
3. Approx. 95 inch lb. torque input at maximum operating load.
4. Furnished crank: 8 inches.

## 5000 lbs. capacity fixed pad jack (without caster) Jack Data

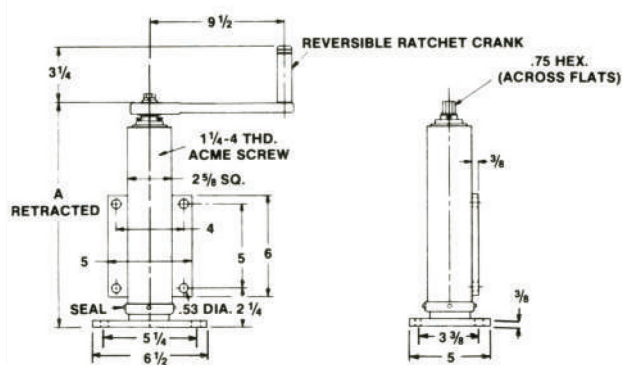
Part Number	Stroke	A	Weight Less Caster	Side Load (lbs.)
31048-3	3	13 <sup>5</sup> / <sub>8</sub>	31 <sup>1</sup> / <sub>2</sub>	725
31048-6	6	16 <sup>5</sup> / <sub>8</sub>	35	600
31048-12	12	22 <sup>5</sup> / <sub>8</sub>	42	450
31048-18	18	28 <sup>5</sup> / <sub>8</sub>	49	350
31048-24	24	36 <sup>5</sup> / <sub>8</sub>	64	250

## 4000 lbs. capacity casterjack (with caster) Caster Data

Part Number	Maximum Capacity	Maximum Caster Height	Maximum Offset	Bolt Hole Spacing	Bolt Diameter
31048-3	4000	10 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> x 5 <sup>1</sup> / <sub>4</sub>	1/2
31048-6	4000	10 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> x 5 <sup>1</sup> / <sub>4</sub>	1/2
31048-12	4000	10 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> x 5 <sup>1</sup> / <sub>4</sub>	1/2
31048-18	4000	10 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> x 5 <sup>1</sup> / <sub>4</sub>	1/2

\* Side load capacity based on 4,000 lbs. load with jack at full extension and with caster mounted having a maximum overall height of 10<sup>5</sup>/<sub>16</sub>" and 2<sup>1</sup>/<sub>2</sub>" swivel offset. Unit must be securely fixed at point of jack side plate, and also between jack base plate and caster top plate.

\* See basic data for 31040 jack assemblies when using unit less caster.



## Basic Data

1. 4 revs. input for 1 inch of stroke.
2. 1800 lb. maximum operating load, compression.
3. Approx. 240 inch lb. torque input at maximum operating load.
4. Furnished crank: 9<sup>1</sup>/<sub>2</sub> inches.

## 5000 lbs. capacity fixed pad jack (without caster) Jack Data

Part Number	Stroke	A	Weight Less Caster	Side Load (lbs.)
31058-3	3	12	16	725
31058-6	6	15	23	600
31058-12	12	21	30	450
31058-18	18	27	38	350

## 4000 lbs. capacity casterjack (with caster) Caster Data

Part Number	Maximum Capacity	Maximum Caster Height	Maximum Offset	Bolt Hole Spacing	Bolt Diameter
31058-3	1800	10 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> x 5 <sup>1</sup> / <sub>4</sub>	1/2
31058-6	1800	10 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> x 5 <sup>1</sup> / <sub>4</sub>	1/2
31058-12	1800	10 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> x 5 <sup>1</sup> / <sub>4</sub>	1/2
31058-18	1800	10 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> x 5 <sup>1</sup> / <sub>4</sub>	1/2

\* Side load capacity based on 1,800 lbs. load with jack at full extension and with caster mounted having a maximum overall height of 10<sup>5</sup>/<sub>16</sub>" and 2<sup>1</sup>/<sub>2</sub>" swivel offset. Unit must be securely fixed at point of jack side plate, and also between jack base plate and caster top plate.

\* See basic data for 31050 jack assemblies when using unit less caster.

**NOTE** Maximum static load to yield, combined with maximum operating load.  
Unit must be securely fixed at mounting point of jack side plate to frame member.

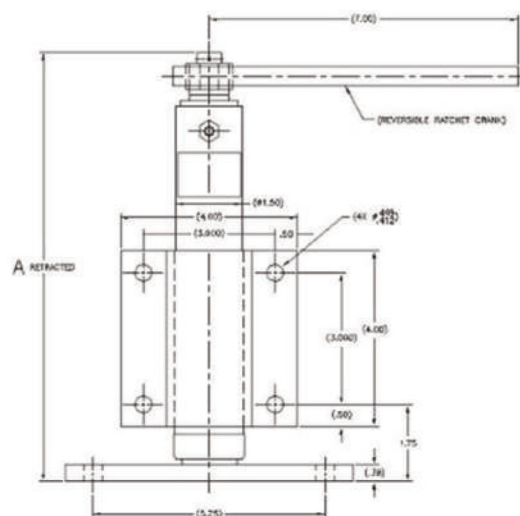
# CASTER JACKS

## 500 lbs. capacity fixed pad jack (without caster)

### Basic Data

Part Number	Stroke	A	Weight Less Caster	Side Load (lbs.)
31068-3	3	9 <sup>3</sup> / <sub>4</sub>	5	700
31068-6	6	12 <sup>3</sup> / <sub>4</sub>	6	550
31068-9	9	15 <sup>3</sup> / <sub>4</sub>	9	350
31068-12	12	18 <sup>3</sup> / <sub>4</sub>	11	350
31068-18	18	24 <sup>3</sup> / <sub>4</sub>	14	250

500 lb. Capacity/Fixed Pad Available with Caster.



### Basic Data

1. 6 revs. input for 1 inch of stroke.
2. 500 lb. maximum operating load, compression.
3. 1,500 lbs. maximum static compression to yield.
4. Approx. 80 inch lb. torque input at maximum operating load.
5. Furnished with 6 inch crank.

# CASTER JACKS

## 31000 SERIES JACKS

*Seven basic models that meet most every lifting requirement up to 10,000 pounds.*



- 1. Versatile** jacks can operate vertically or horizontally to raise, lower or push your load. Units requiring tension load capability are available on special application.
- 2. Compact** single package unit does away with cylinders or other space consuming arrangements.
- 3. Complete Protection of Screw & Critical Parts** by inner and outer tube enclosure. Round tubes in 10,000 lb. models assure precision fit and extreme mounting rigidity. Other models have square tube construction. Special tube locks available where side movement must be completely eliminated.
- 4. Automatic Latch & Self-Locking Design** provides double safety against rotation of jack screw under vibration or extreme loading conditions. No need for brakes or expensive locking devices. Automatic latch is standard in 7,500 lb. and 10,000. lb. models. Latch actuates when crank handle is removed from assembly.
- 5. Can Take Side Loads** resulting from uneven terrain, off-center loading, and eccentric mounting methods.
- 6. High Efficiency Bevel Gear-Heads** with 3.1 or 3.66 1 gear ratios in 5,000 lb., 7,500 lb. and 10,000 lb. models. Gearheads have precision tapered thrust bearing steel or bronze driveshaft bushings, large lubricant reservoir. 500 lb. and 1,800 lb. models operate on direct screw drive.
- 7. Stowable** solves ground clearance problem. Trunnion mount 31000 and 31020 models swing up and out of the way...are easily attached to trailer in the horizontal position.
- 8. Corrosion-Resistant Finish** all jacks are treated with protective phosphate to Mil-P-16232 and are prime painted with red oxide per Mil-TT-P-636. All hardware is zinc or cadmium plated.



# CASTER JACKS

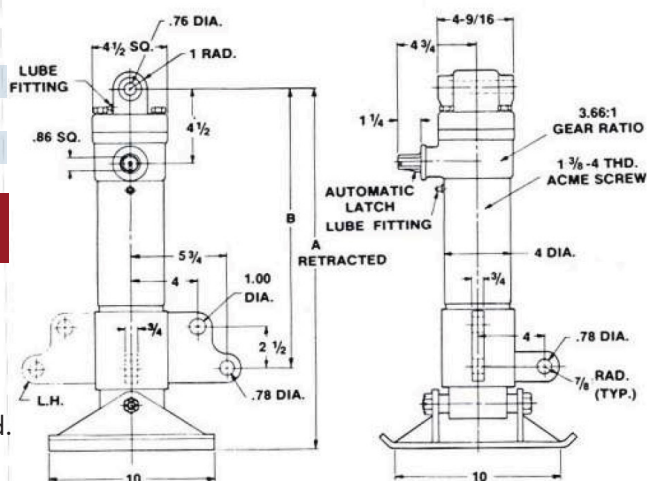
## 10,000 lbs. Capacity Stowable

Part Number	Stroke	A	B	Side Load (lbs.)	Weight
31000-6 (LorR)	6	22	17	11600	71
31000-12 (LorR)	12	28	23	7000	83
31000-18 (LorR)	18	34	29	5000	95

**NOTE** Maximum static side load to yield. combined with maximum operating load. Unit must be securely fixed at connecting points.

### Basic Data

- 14.6 revs. input for 1 inch of stroke.
- 10,000 lb. maximum operating load, compression.
- 25,000 lb. maximum static compression to yield.
- Approx. 380 inch lb. torque input at maximum operating load.
- Specify crank: 8 inches. Part No. 10582-K or 12 inch, Part No. 10582-M.



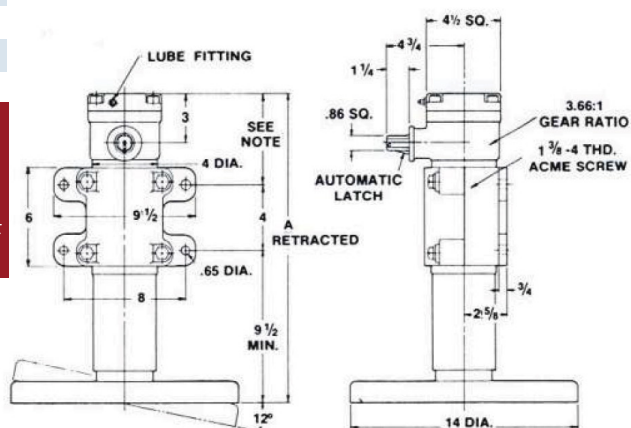
## 10,000 lbs. Capacity Rigid Mount

Part Number	Stroke	A	B	Side Load (lbs.)	Weight
31010-6 (LorR)	6	22	19	6300	86
31010-12 (LorR)	12	28	25	3600	98
31010-18 (LorR)	18	34	31	2500	100

**NOTE** Maximum static side load to yield. combined with maximum operating load. Unit must be securely fixed at mounting point of jack side plate to frame member. Adjustable clamp bracket may be adjusted along entire length of tube toward gear head on -12 to -18 models. As a precaution it is advisable to weld bracket to outer tube, on all units, after location of proper mounting height is determined to prevent possible slippage.

### Basic Data

- 14.6 revs. input for 1 inch of stroke.
- 10,000 lb. maximum operating load, compression.
- 25,000 lb. maximum static compression to yield.
- Approx. 380 inch lb. torque input at maximum operating load.
- Specify crank: 8 inches. Part No. 10582-K or 12 inch, Part No. 10582-M.



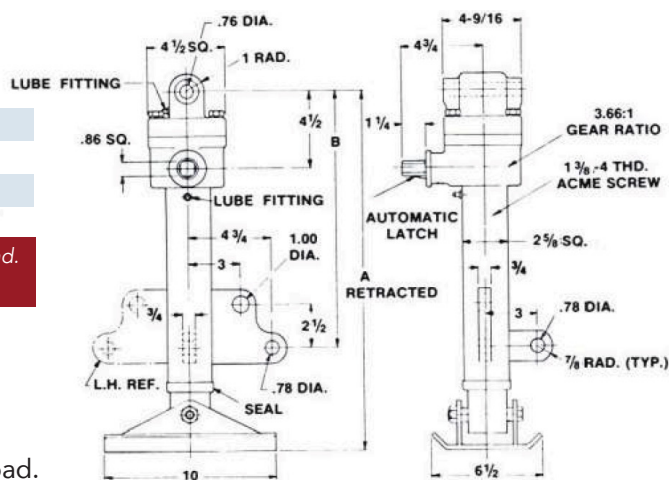
## 7,500 lbs. Capacity Stowable

Part Number	Stroke	A	B	Side Load (lbs.)	Weight
31020-6 (LorR)	6	21	15	850	45
31020-12 (LorR)	12	27	21	500	52
31020-18 (LorR)	18	33	27	400	59

**NOTE** Maximum static side load to yield. combined with maximum operating load. Unit must be securely fixed at connecting points.

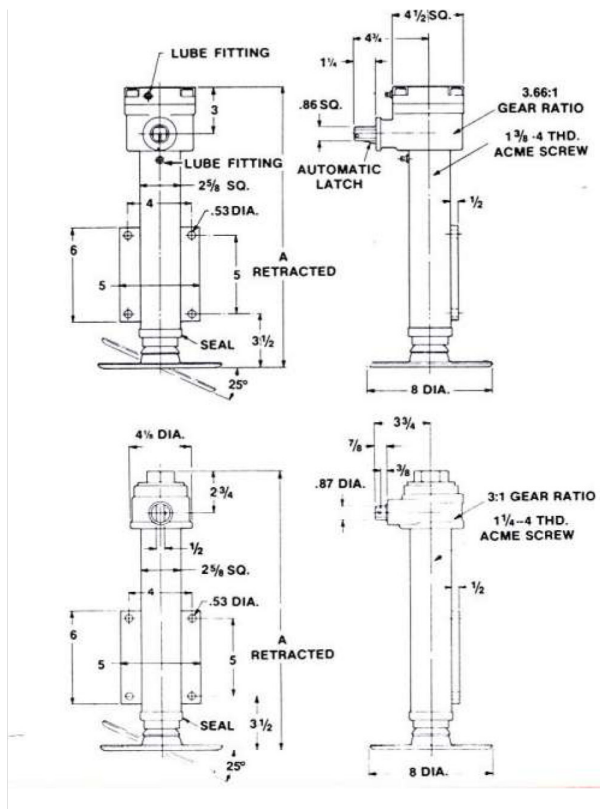
### Basic Data

- 14.6 revs. input for 1 inch of stroke.
- 7,500 lb. maximum operating load, compression.
- 22,000 lb. maximum static compression to yield.
- Approx. 285 inch lb. torque input at maximum operating load.
- Specify crank: 8 inches. Part No. 10582-K or 12 inch, Part No. 10582-M.
- Available with 14" dia. all terrain foot pad. Specify Part No. 31022-6 etc.



# CASTER JACKS

**NOTE** Maximum static side load to yield. combined with maximum operating load.  
Unit must be securely fixed at mounting point of jack side plate to frame member.



## 7,500 lbs. Capacity Rigid Mount

Part Number	Stroke	A	Side Load (lbs.)	Weight
31030-6 (LorR)	6	18	1100	45
31030-12 (LorR)	12	24	600	52
31030-18 (LorR)	18	30	400	59

### Basic Data

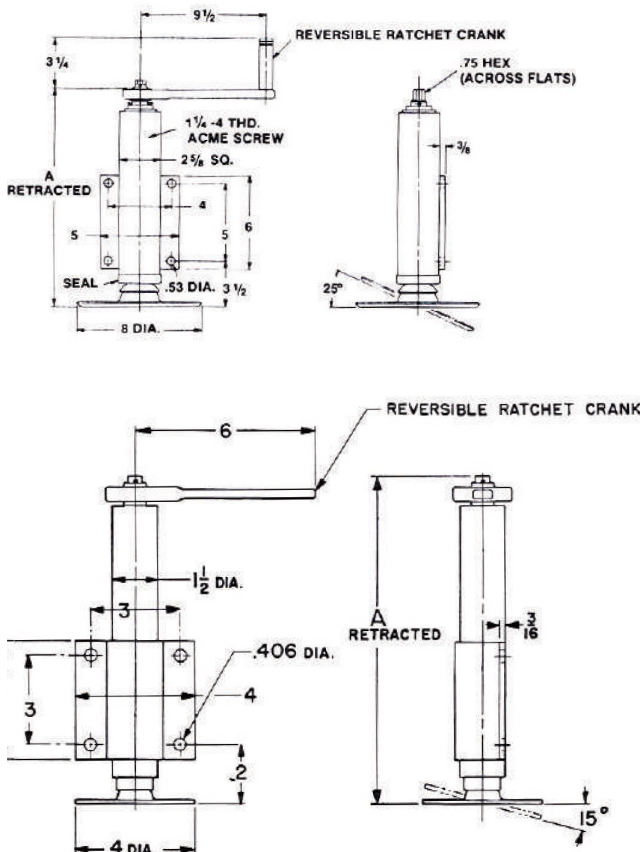
1. 14.6 revs. input for 1 inch of stroke.
2. 7,500 lb. maximum operating load, compression.
3. 22,000 lb. maximum static compression to yield.
4. Approx. 285 inch lb. torque input at maximum operating load.
5. Specify crank: 8 inches. Part No. 10582-K or 12 inch,

## 5,000 lbs. Capacity Rigid Mount

Part Number	Stroke	A	Side Load (lbs.)	Weight
31040-6 (LorR)	6	18	1100	35
31040-12 (LorR)	12	24	600	42
31040-18 (LorR)	18	30	400	49

### Basic Data

1. 12 revs. input for 1 inch of stroke.
2. 5,000 lb. maximum operating load, compression.
3. 15,000 lb. maximum static compression to yield.
4. Approx. 235 inch lb. torque input at maximum operating load.
5. Specify crank: 8 inches. Part No. 14168-4.



## 1,800 lbs. Capacity Rigid Mount

Part Number	Stroke	A	Side Load (lbs.)	Weight
31050-6 (LorR)	6	16	1200	18
31050-12 (LorR)	12	22	700	25
31050-18 (LorR)	18	28	500	32

### Basic Data

1. 4 revs. input for 1 inch of stroke.
2. 1,800 lb. maximum operating load, compression.
3. 4,500 lb. maximum static compression to yield.
4. Approx. 240 inch lb. torque input at maximum operating load.
5. Furnished with 8 inch crank as shown.

## 5,000 lbs. Capacity Rigid Mount

Part Number	Stroke	A	Side Load (lbs.)	Weight
31060-6 (LorR)	3	10	800	5
31060-12 (LorR)	6	13	450	7
31060-18 (LorR)	6	16	300	9

### Basic Data

1. 6 revs. input for 1 inch of stroke.
2. 500 lb. maximum operating load, compression.
3. 4,000 lb. maximum static compression to yield.
4. Approx. 80 inch lb. torque input at maximum operating load.



# CASTER JACKS

## GLOSSARY OF TERMS

**Actuation**

A method of applying torque to the input shaft of a jack assembly.

**Caster Jack**

The combination of a jack assembly with a rigid plate on the bottom of the inner tube assembly being mated with a caster assembly.

**Caster Offset**

The horizontal distance between the vertical center lines of the kingpin and axle.

**Extended Height**

The overall length of a jack assembly at full extension. This dimension is from the center line of a trunnion hole on a stowable type jack, or the top of the gear housing cap on a rigid jack, to the bottom of the footpad or caster.

**Finish**

All jacks are treated with protective phosphate to Mil-P-16232 and are prime painted with red oxide per Mil-TT-P-636.

**Footpad**

The lower portion of a jack assembly which makes contact with the ground.

**Handle Pull**

The calculated force required to turn the crank handle while elevating the load.

**Lifting Capacity**

The load to be elevated or lowered by each jack.

**Lubrication**

All jacks are factory lubricated with Mil-G-10924 high-low temperature grease -65° to 175° fahrenheit.

**Non-Offset Caster**

The vertical center line of the jack passes through the center line of the axle.

**Retracted Height**

The overall length of a jack assembly at full retraction. This dimension is from the center line of a trunnion hole on a stowable type jack, or the top of the gear housing cap on a rigid jack, to the bottom of the footpad or caster.

**Rigid Caster**

A complete non-swiveling caster with wheel mounted.

**Rigid Mounting**

The incorporation of a plate welded or bolted to the outer tube assembly of a jack. When this unit is attached to the load member, a rigid connection is obtained to enable a load to be elevated.

**Side Load**

The maximum static load to be imposed on each jack laterally.

**Stowable Mounting**

Connection of a jack to the load member through the use of a trunnion and stay bar assembly, which will allow the jack to be tilted or stored in the horizontal position when not in use.

**Swivel Caster**

A complete caster with wheel mounted so that it will turn freely throughout 360° about its swivel bearing assembly and kingpin.

**Swivel Lock**

A positive 4-position plunger type lock-out device used to prevent a swivel caster from swiveling when a lateral load is applied.

**Torque Input**

The amount of force calculated in inch pounds required to turn the input shaft while elevating the load.

**Vertical Load**

The maximum static load to be imposed on each jack vertically.

**Wheel Brake**

A manually actuated brake device used to prevent the caster wheel from revolving when a side load is applied.