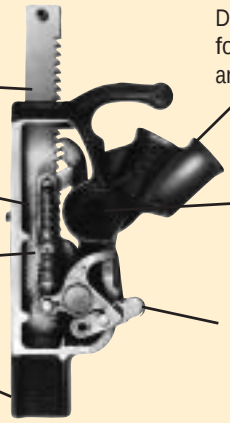
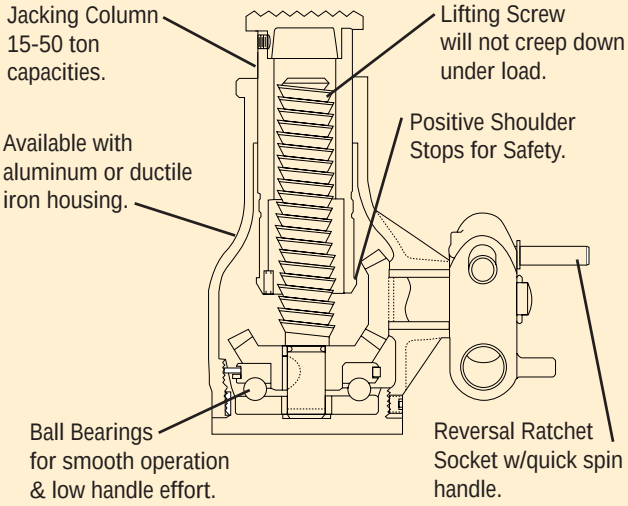
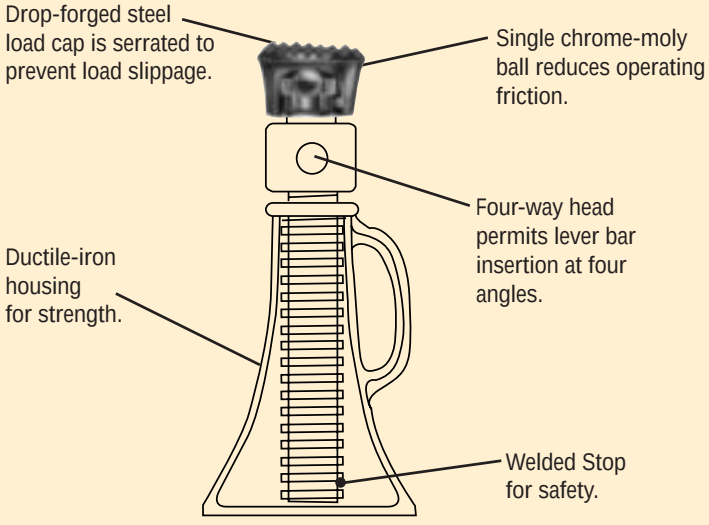
THE SIMPLEX PLUS







SIMPLEX MECHANICAL JACKS

RATCHET JACKS

SUPERJACKS®

SCREW JACKS

TOC

RATCHET JACKS

- 8 Models.
- Double-lever sockets for jacking in close quarters.
- Multiple-tooth pawls for strength & safety.
- Drop-forged, alloy steel, heat-treated components.
- Adjustable spring links.
- Plated springs to resist corrosion.
- Precision machining throughout.
- Large base insures a firm foundation.
- Supports full rated capacity on the toe or the cap.
- Steel lever bars sold separately.

Model 85A is used to lift a CNC machine for installation. Five ton lifting capacity, low toe height and light weight make the models 84A, 85A, & 86A universal tools. Ten ton models 1017 & A1022 are used extensively by structural movers, riggers & maintenance crews.

■ **5 Ton Ratchet Jacks**

These units are all mechanically identical and vary only in stroke and height.

■ **10 Ton Ratchet Jacks**

The 1017 and 22B incorporate a ductile iron housing for maximum durability. The A1022, which is identical to the 22B except for an aluminum housing, is the ideal choice when portability is important. These jacks are often selected for lifts of 10 tons or less because of their low handle effort.

■ **A1538 Utility Pole Jack**

Light weight aluminum alloy housing is used for pole lining maintenance by telephone, light and power, and railroad companies. Jack pivots, I-Beam base assures firm foundation. Alloy steel chain, I-Beam base, and steel lever bar are all ordered separately.

I-Beam Base Order#: 10800
Alloy Chain Order#: 10760

Ratchet Jacks

Model Number	Supporting Cap. (tons)	Lifting Cap. (tons)	Stroke (in)	Handle Effort per Ton (lbs)	Cap Min. Height (in)	Toe Min. Height (in)	Base Size (in)	Weight (lbs)	Steel Lever Bars			
									Order Number	Length (in)	Dia. (in)	Weight (lbs)
84A	5	5	7	32	14	1 3/4	5 x 7 3/8	28	10640	36	1	8
85A			10		17			30				
86A			13		20			35				
1017	10	10	9 1/2	30	17 1/4	2	6 x 8 3/4	40	10665	60	1 1/4	17
A1022			12		21 5/8	2 1/4	6 1/2 x 10 1/4	42				
22B								70				
A1538	15	8	22	32	-----	-----	8 x 8 1/4	62	10675	72	1 1/4	20
24A	20	15	13	32	23 1/4	2 1/4	8 x 10 1/4	93				
2029			18		28 1/4		8 x 11	104				

***Pivot Bases** are included on model A1538.*
***Optional** for the A1538 are I-Beam Base (#10800) and Chain (#10760).*

Note: 10665 & 10675 lever bars are interchangeable. The longer 10675 bar results in lower handle efforts.

REEL JACKS

Simplex Reel Jacks Are Standard Equipment At Utilities.

321B

- **4 Models.**
- **Double-lever sockets.**
- **Multiple-tooth pawls for strength & safety.**
- **Forged alloy steel, heat-treated components.**
- **Adjustable spring links.**
- **Plated springs to resist corrosion.**
- **Precision machining throughout.**
- **Steel lever bars sold separately.**
- **Tough hardwood bases laminated for extra strength.**

■ **Model 320B**
With three hooks; top fits up to 64mm spindles; side hooks fit up to 2" spindles.

■ **Model 321B (shown above)**
With five hooks; top fits up to 3 1/2" spindles, next hook down fits up to 3" spindles, and lowest three fit up to 2 3/8" spindles. This model is recommended for use on firm surfaces.

■ **Model A1029**
The A1029 has a light weight aluminum alloy housing and three hooks; top fits up to 3" spindles, side hooks fit up to 2 3/8" inch spindles. Equipped with right or left-handed t-base, supported by three adjustable steel rods to provide a sturdy, non-rocking foundation for outside use. Caps swivel for easy reel mounting. Steel lever bars are ordered separately.

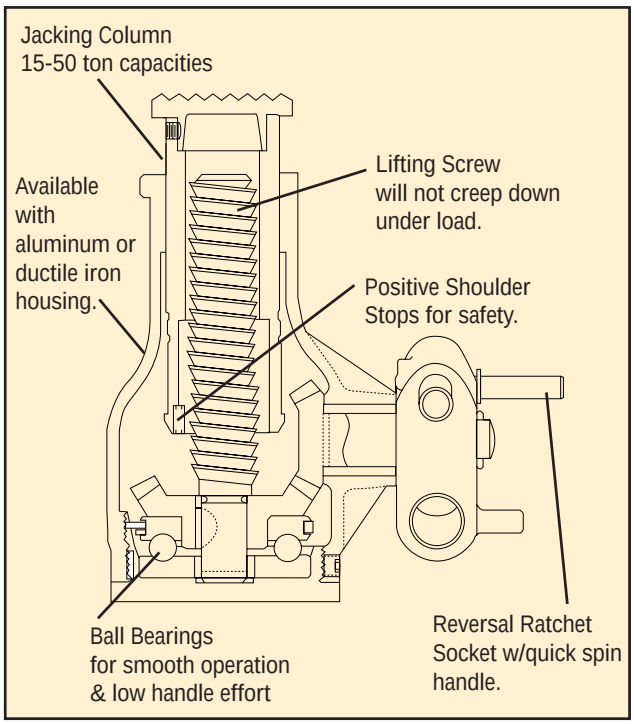
Using A1029-R and A1029-L, utilities can easily handle large reels. The large wooden bases and low handle efforts enhance safety and reduce operator fatigue. Simplex Reel Jacks are also an excellent choice for wire rope and sling manufacturers.

Reel Jacks

Model Number	Capacity per Pair		Handle Effort per Ton (lbs)	Stroke (in)	Reel Dia. (in)	Top Hook Height (in)	Weight (lbs)	Steel Lever Bars			
	Side Hooks (tons)	Top Hooks (tons)						Order Number	Length (in)	Dia. (in)	Weight (lbs)
320B	5	10	32	10	20-60	21	51	10640	36	1	8
321B	10	20	22	12	20-96	34 1/2	128	*10665	60	1 1/4	17
A1029-R				11 5/8	36-84	31 1/8	86				
A1029-L											

**Lever bar 10675 can be substituted resulting in lower handle effort.*

Steel Fabricators Use Simplex Superjacks In Rough Environments.



- **8 Models.**
- **Holds the load indefinitely without creep down.**
- **Positive stop.**
- **High capacities.**
- **Low handle efforts.**
- **Steel lever bars sold separately.**

Outdoor use and weld splatter can shorten the life of standard jacks. "We chose Simplex Superjacks for the bullet proof construction and holding power." They provide trouble-free service in the roughest applications.

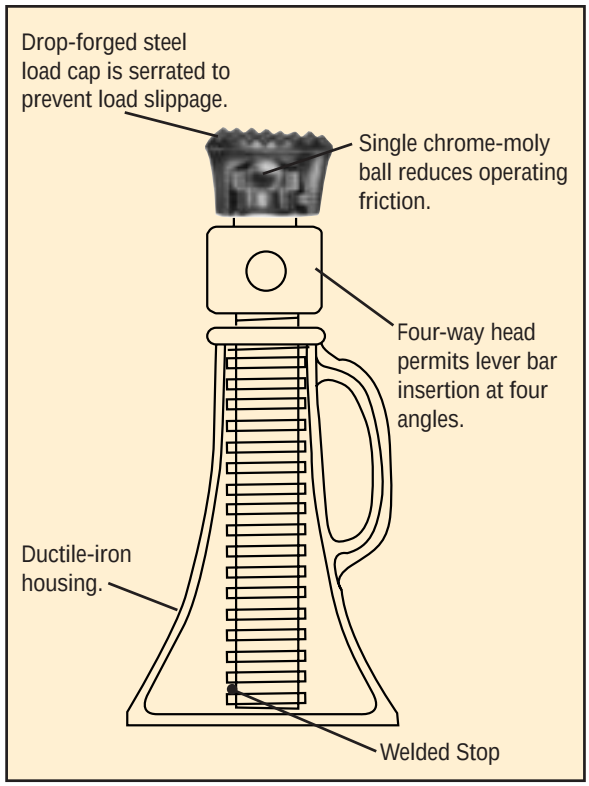
Superjacks

Model Number	Cap. (tons)	Min. Height (in.)	Stroke (in.)	Handle Effort Per Ton (lbs.)	Base Dia. (in)	Weight (lbs)	Steel Lever Bars			
							Order Number	Length (in)	Dia. (in)	Weight (lbs)
A1510C	15	10 1/4	5	9	5 1/2	28	10640	36	1	8
2510C	25			6		43				
A2510C						34				
A2515C		15	9			43				
3510D	35	10 1/4	5	5		44				
A3510D						34				
5010B	50	10 5/16	4	4	7 1/4	80	10660	56	1 1/8	16
A5010B						61				

SCREW JACKS

- 9 Models.
- Ductile iron bodies for strength.
- Positive stop for safety.
- Supports loads indefinitely, and won't creep down.
- Serrated load cap.
- Steel lever bars sold separately.

Simplex screw jacks are used to adjust the height of this roller fixture. "We use this fixture during the assembly of long pieces of screw stock." "Simplex screw jacks makes fixturing easy and precise."



Screw Jacks

Model Number	Order Number	Sustaining Capacity (tons)	Closed Height (in.)	Stroke (in.)	Handle Effort Per Ton (lbs.)	Base Dia. (in)	Weight (lbs)	Steel Lever Bars			
								Order Number	Length (in)	Dia (in)	Weight (lbs)
1 1/2 x 6	03060	12	9 3/4	3 3/4	16	4 3/4	10	10621	24	3/4	4
1 1/2 x 8	03090		11 5/8	5 3/4		5 1/2	12				
1 1/2 x 12	03120		15 5/8	9 3/4		6 1/4	16				
2 x 8	03165	20	11 3/4	5	15	6	17	10635	36	13/16	6
2 x 10	03195		13 3/4	7		6 1/2	20				
2 x 12	03210		15 3/4	9		6 3/4	24				
2 1/2 x 8	03240	24	13	4 1/4		6 1/2	28	10655	42	1 1/8	12
2 1/2 x 12	03255		17	8 1/4		7 1/4	37				
2 1/2 x 18	03300		23	14 1/4		8 1/2	52				

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SCREW & CAP ASSEMBLIES

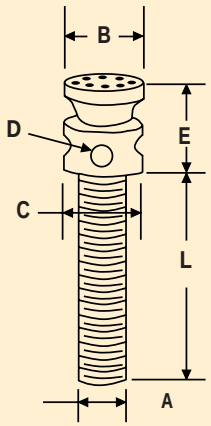
Versatile accessories for **outrigger supports, holding and adjusting concrete forms**, or for any application requiring special holding or shoring support.

The shouldered nut is placed into piping or another fixed form, and the screw & cap assembly is threaded through it. Four-way head assembly accommodates the lever bar at four different positions for infinite height adjustments and exact leveling.

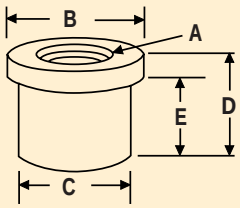
Drop forged serrated steel cap floats 9° on a chrome-moly ball reducing friction by 88%.

144 Screw and Cap assemblies support the outer wall of a large generator assembly at the Grand Coulee Dam. The assemblies also are used to exert pressure, stabilizing the generator laminations.

The shoulder nut is placed into piping, fixtures or other fixed forms supplied by the user.



DIMENSIONAL DATA FOR SCREW AND CAP ASSEMBLIES



Screw & Cap Assemblies

Model Number	Order Number	Sustaining Capacity (tons)	Modified Acme Thread Dia.-Pitch	Dimensions B (in.)	C (in.)	D (in.)	E (in.)	L (in.)	Weight (lbs)	Steel Lever Bars Order Number	Length (in)	Dia (in)	Weight (lbs)
1 1/2 BC-30-6	03568	12	1 1/2 - 3	2 7/8	2 1/4	7/8	3 3/4	5 11/16	5 1/2	10621	24	3/4	4
1 1/2 BC-30-8	03570							7 11/16	6 1/4				
1 1/2 BC-30-12	03574							11 11/16	7 3/4				
2 BC-30-8	03582	20	2 - 2 1/2	3 1/8	2 7/8	15/16	4	7 9/16	10 1/2	10635	36	13/16	6
2 BC-30-10	03584							9 9/16	12				
2 BC-30-12	03586							11 9/16	13 1/2				
2 1/2 BC-30-8	03600	24	2 1/2 - 2 1/2	3 1/4	3 1/4	1 3/16	5 1/16	7 13/16	16 3/4	10655	42	1 1/8	12
2 1/2 BC-30-12	03602							11 13/16	21 3/4				
2 1/2 BC-30-18	03608							17 13/16	29 1/4				

Shoulder Nuts

1 1/2 NS-25	03620	----	1 1/2 - 3	3	2 13/32	3	2 1/4	----	3 1/4
2 NS-25	03625		2 - 2 1/2	4	3	3 1/4	2 1/4	----	5
2 1/2 NS-25	03630		2 1/2 - 2 1/2	5	3 15/16	4	3	----	11

SIMPLEX FILTER AND STORAGE TANK JACKS

Simplex Tank Jacks offer an economical means of supporting and leveling vertical, bottom, or side-opening filter and storage tanks. Screw operation provides infinite adjustment for exact tank leveling and gravity flow. **Rated capacity for all models is 15,000 lbs.**

C1025 steel saddle is welded to the tank before being set on the jack.

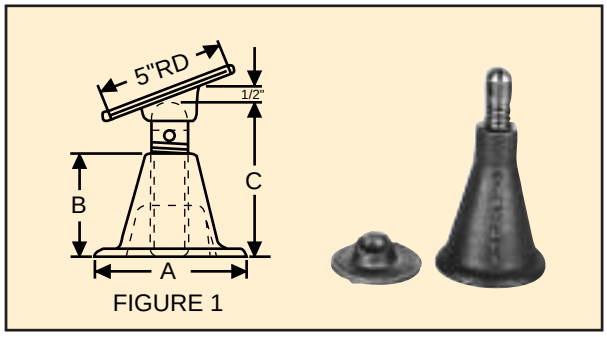


FIGURE 1

Tank Jack Dimensions

Model Number	Order Number	Base Dia. (in)	Base Height "B" (in)	Min. Height "C" (in)	Max. Height "C" (in)	Weight (lbs)
4406	03820	5 3/4	4	6	8	10
4410	03840	6	8	10	12	12
4414	03860	6 1/2	12	14	16	17
4418	03880	8	16	18	20	26
Saddle	03993	-----	-----	-----	-----	2.5

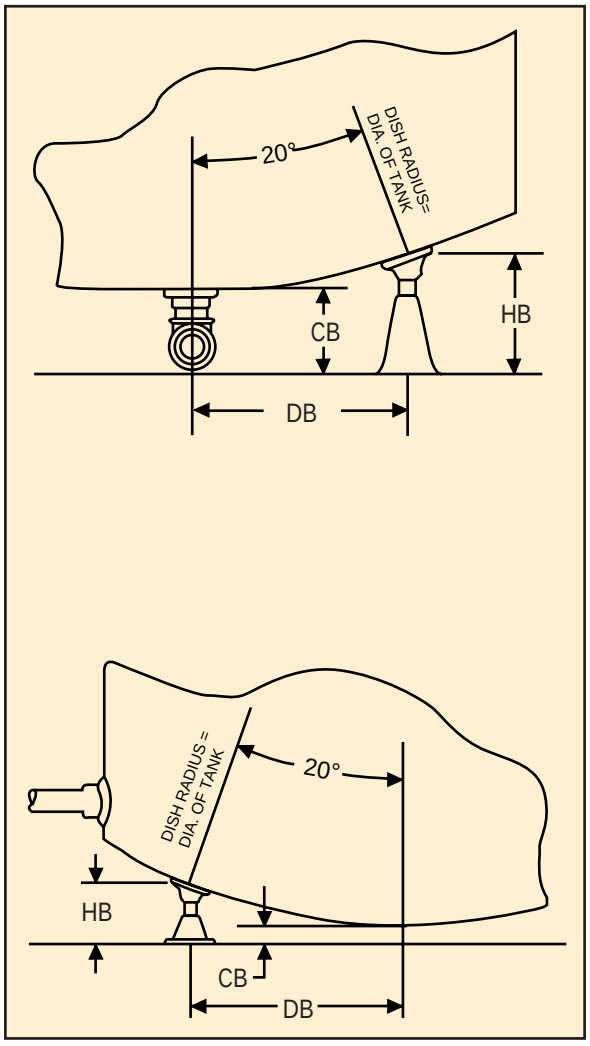
Use this chart with Fig. 1 to determine the Tank Jack dimensions.

For bottom pipe connections

Tank Dia. (ft-in)	Pipe Dia. (in)	Sug. Jack Model Number	"DB" (in)	"HB" (in)	"CB" (in)	Qty. Required Under 12 Ft.	Qty. Required Over 12 Ft.
3-6	2	4410	14	10 1/2	8	4	4
4-0	2 1/2		16	11 7/8	9		
4-6	2 1/2		18	12 1/4	9		
5-0	2 1/2	4414	20	14 5/8	11		
5-6	2 1/2		22	15	11		
6-0	3		24	16 3/8	12		
6-6	3		26	14 5/8	10		
7-0	4	4418	28	18 1/4	13 1/4		6
7-6	4		30	18 5/8	13 1/4		
8-0	4		32	19	13 1/4	6	8
8-6	5		35	20	14		
9-0	5		37	19 1/2	13		
9-6	5		39	20	13	8	8
10-0	6		41	21	14		

For side pipe connections

Tank Dia. (ft-in)	Pipe Dia. (in)	Sug. Jack Model Number	"DB" (in)	"HB" (in)	"CB" (in)	Qty. Required Under 12 Ft.	Qty. Required Over 12 Ft.
3-6	---	4406	14	6 1/2	4	4	4
4-0	---		16	6 3/8	3 1/2		
4-6	---		18	6 3/4	3 1/2		
5-0	---		20	7 1/8	3 1/2		
5-6	---		22	7 1/2	3 1/2		
6-0	---		24	6	1 1/2		
6-6	---		26	6 1/8	1 1/2		
7-0	---		28	6 1/2	1 1/2		6
7-6	---		30	6 7/8	1 1/2		
8-0	---		32	7 1/4	1 1/2	6	8
8-6	---		34	7 5/8	1 1/2		
9-0	---		36	8	1 1/2		
9-6	---	4410	38	10 3/8	3 1/2	8	8
10-0	---		42	10 3/4	3 1/2		



Use the installation data charts, with accompanying drawings, to determine the size and number of jacks your application will require.

SIMPLEX STEAMBOAT JACK

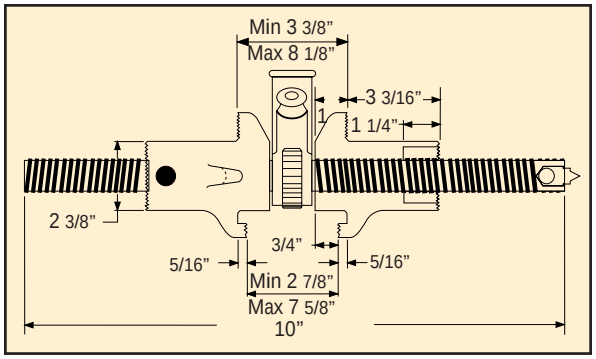
These 20 ton capacity models are used for connecting river barges, pulling forms and steel plates together and other applications in bridge construction and concrete and steel engineering projects. Units are equipped with spring activated pawls and 26" long attached handles. The handle effort per ton is 16 lbs. The I.D. of the eye is 1 5/16". Depth of eye is 1 7/8".

Model Number	Dim. "A" (in)	Travel (in)	Barrel Length (in)	Screw Dia. (in)	Weight (lbs)
ER-10	23	14	18	2	57
ER-20	29	20	24		66
ER-30	35	26	30		74
ER-40	47	38	42		92

SIMPLEX 610 PUSH/PULL JACK

The model 610 is used for pushing or pulling, holding & more; **ideal for weld shops**.

For added versatility, the end nuts are designed to permit the use of chains with eye hooks. Steel lever bar is ordered separately.



SIMPLEX 610-15 RATCHET SCREW ASSEMBLY

The ratchet screw assembly may be custom adapted to almost any push/pull application such as adjusting forms, fixtures, doors, flues, and dampers. Incorporates 1 1/4-6 Acme class 2G, right and left hand thread.

Model Number	Centered Capacity (tons)	Hook/Toe Offset Load Capacity (tons)	Travel (in)	Handle Effort Per Ton (lbs)	Screw Dia. (in)	Length (in)	Weight (lbs)	Steel Lever Bars			
								Order Number	Length (in)	Dia (in)	Weight (lbs)
610	10	2	4 1/2	15	1 1/4	10	13	10621	24	3/4	4
610-15	10	2	----	15	1 1/4	----	5				

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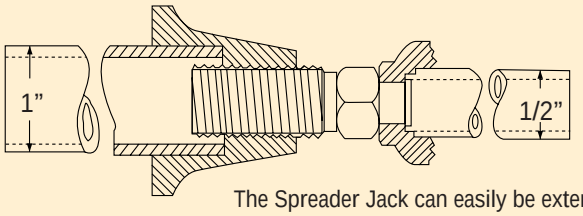
SPREADER JACK

Model 3A

The model 3A Spreader Jack Is used when working in close quarters.

The Spreader Jack has a closed height of only 3”, with 1” stroke for adjustments, yet it **can support 3 tons.** The serrated cap rotates to prevent twist out, but does not pivot. The Spreader Jack may also be used as a planer jack.



The Spreader Jack can easily be extended by fitting a 1” diameter pipe in the base well and a 1/2” diameter pipe in the cap well.

PLANER JACKS

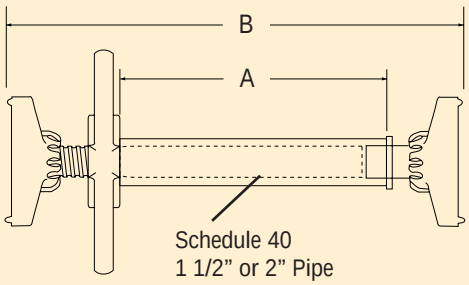
Four different models are available, with capacities ranging from 2 to 8 tons. They are used in leveling work on plane beds, millers and other machinery.

Screw's operation provides infinite height adjustments for exact leveling. The side-locking screw keeps the jack extended and **prevents lowering due to vibration.** The ball and socket cap swivels to center load forces. The notched base fastens easily to machine beds.

Model Number	Sustaining Cap. (tons)	Minimum Height (in)	Operable Rise (in)	“A” Across Flats (in)	Weight (lbs)
1P	2	2 3/4	1	2 3/8	1 1/2
2P	4	3 3/4	1 1/2	3 1/8	3
3P	6	5 1/4	2 1/4	4	6
4P	8	7 1/2	4	5 3/8	12

Butt End Screw End

Simplex Trench Braces provide efficient, economical protection against cave-ins and costly redigging in construction and utility maintenance. Braces extend by turning the lever nut handle. The ball socket joints tilt for **added safety on angular mounting.** Holes on each end facilitate mounting to wood members.



(Fig. 1) All Trench Brace Models

Specifying Simplex Trench Braces

Simplex trench braces are designed for use with standard schedule 40 pipe. Screw end models SE-12, SE-16 and butt end model BE-25 **use 1 1/2" diameter pipe**. Model SE-18 and butt end BE-35 use **2" diameter pipe**. Pipe should be cut to length based on the chart below and drawing in Fig. 1.

Model Number	Adjust Range (in)	Pipe Size (in)	Butt End	"A" Min. Pipe Length (in)	"B" Min. Closed Ht. (in)
SE-12	7	1 1/2	BE-25	12	18
SE-16	10			16	22
SE-18		2	BE-35	18	25 1/2

Dimensions assume the use of both screw & butt ends together as an assembly.

Quick Reference Timber/Trench Brace Equivalency Tables*

The following charts are based on OSHA Timber/Trench Brace Charts* which do not consider transverse loading conditions.

Soil Type A $P_a = 25 \times H + 72$ psf (2ft. Surcharge)

Trench Depth (ft)	Horizontal Spacing (ft)	Cross Brace: Width of Trench (ft) up to 4	Cross Brace: Width of Trench (ft) up to 6	Cross Brace: Width of Trench (ft) up to 8	Cross Brace: Vertical Spacing (ft)	Wales: Size (in)	Wales: Vertical Spacing (ft)	Uprights (in): Max. Allowable Horizontal Spacing (Ft) 4'	5'	6'	8'
5 to 10	up to 6	SE12 SE16	SE12 SE16	SE18	4	Not Req.				2"x6"	
	up to 8	SE12 SE16	SE12 SE16	SE18							2"x6"
	up to 10	SE18	SE18	SE18		8 x 8	4		2"x6"		
	up to 12	SE18	SE18							2"x6"	
10 to 15	up to 6	SE12 SE16	SE12 SE16	SE18		Not Req.				3"x8"	
	up to 8	SE18	SE18			8 x 8	4	2"x6"			

Soil Type B $P_a = 45 \times H + 72$ psf (2ft. Surcharge)

Trench Depth (ft)	Horizontal Spacing (ft)	Cross Brace: Width of Trench (ft) up to 4	Cross Brace: Width of Trench (ft) up to 6	Cross Brace: Vertical Spacing (ft)	Wales: Size (in)	Wales: Vertical Spacing (ft)	Uprights (in): Max. Allowable Horizontal Spacing (Ft) 3'
5 to 10	up to 6	SE-18	SE-18	5	6 x 8	5	2"x6"

** Refer to OSHA Standard, 29CRF 1926, subpart P-Excavations (tables C-1.1 & C-1.2).*

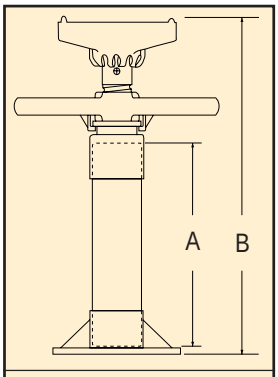
MINE ROOF SUPPORTS

Head Assembly
Model 09167

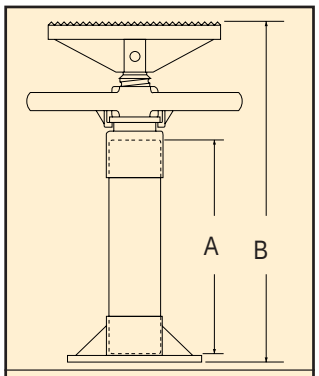
Base Assembly
Model 09220

Type FS Head
For support with wooden or rubber cap pieces.

Type S Head
36 square inches in support area.



09167 and 09209



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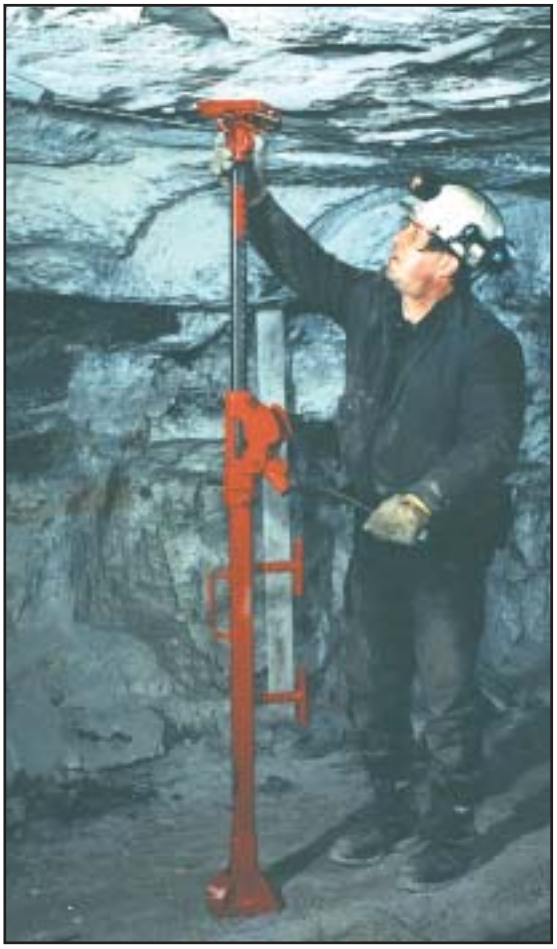

Model Number	"A" Min. Pipe Length (in)	"B" Min. Closed Height (in)
MS9L-FS	20 1/2	27
MS9L-S	20 5/8	25 1/2
MS17L-FS	21 3/4	28 3/4

Simplex head assemblies are designed for roof support in mines and other areas where ceiling heights vary greatly. **Use your own pipe** to custom build a support for nearly any application.

The 8 ton MS-9 models **use 2" schedule 40 pipe**. The 16 ton MS-17 models **require 2" schedule 80 pipe**. A round base (ordered separately) is available to fit the 2" pipe. All models incorporate a lever nut handle and are available with either FS or S style heads.

For economy, use the import version. If U.S. manufacture is required, use the domestic version. Simplex quality is assured with either choice.

Mine Roof Support Head Assemblies

Model Number	Order Number Domestic	Order Number Import	Head Style	Sustaining Capacity (tons)	Stroke (in)	*Max. Pipe Length (in)	Max. Extended Ht. (in)	Dim. Between Flanges (in)	Weight (lbs)
MS9L-FS	09167	09267	FS	8	15	51 3/4	73	5 3/4	19
MS9L-S	09233	--------	S			73 1/4	93	---	19
MS17L-FS	N/A	09309	FS	16		46 1/4	68	5 3/4	34
Base MB-17	09220	--------	---	16	---	---	---	---	6

* ***Maximum pipe length recommendations are based upon the following conditions:***

- *Fully extended assemblies loaded to maximum rated capacity.*
- *Head and base securely fixed to prevent lateral movement.*
- *Schedule 40 pipe with a minimum yield strength of 35,000 psi/8 ton models.*
- *Schedule 80 pipe with a minimum yield strength of 48,000 psi/16 ton model.*

The A9225 Family is rated at 4 tons sustaining capacity, and is suitable for a wide range of mine maintenance applications. The aluminum alloy housing and base, coupled with a convenient carrying handle, make this unit **exceptionally light and portable.**

The A9225 Family incorporates a ratchet mechanism for speedy operation. Lever bar #10635 is ordered separately.

The 139A Family is a screw extension type roof support rated at 5 tons sustaining capacity. Designed for use as a safety prop, the 139A Family is suitable for cross timbering with wood or steel beams.

HEAD STYLES

Type E Head
For all standard work. Dimension between flanges: 8 1/8".

Type F Head
For use with electrical wiring. Dimension between flanges: 10 1/4".

Type S Head
36 square inches in support area.

Complete Unit Ratchet Lever Series - A9225 Family

Head Style	Order Number	Minimum Height (in)	Stroke (in)	Weight (lbs)
E	09602	39	20	29
F	09603			
S	09620			
E	09606	45	26	33
F	09607			
S	09621			
E	09610	57	38	36
F	09611			
S	09622			
E	09614	69		39
F	09615			
S	09623			
E	09616	75		42
F	09617			
S	09624			
E	09618	88		48
F	09619			
S	09625			

Complete Unit Screw Extension Series - 139A Family

E	09802	42	24	50
F	09803			
S	09820			
E	09806	48	30	52
F	09807			
S	09821			
E	09810	54	36	54
F	09811			
S	09822			
E	09814	66		58
F	09815			
S	09823			
E	09818	78		64
F	09819			
S	09824			

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