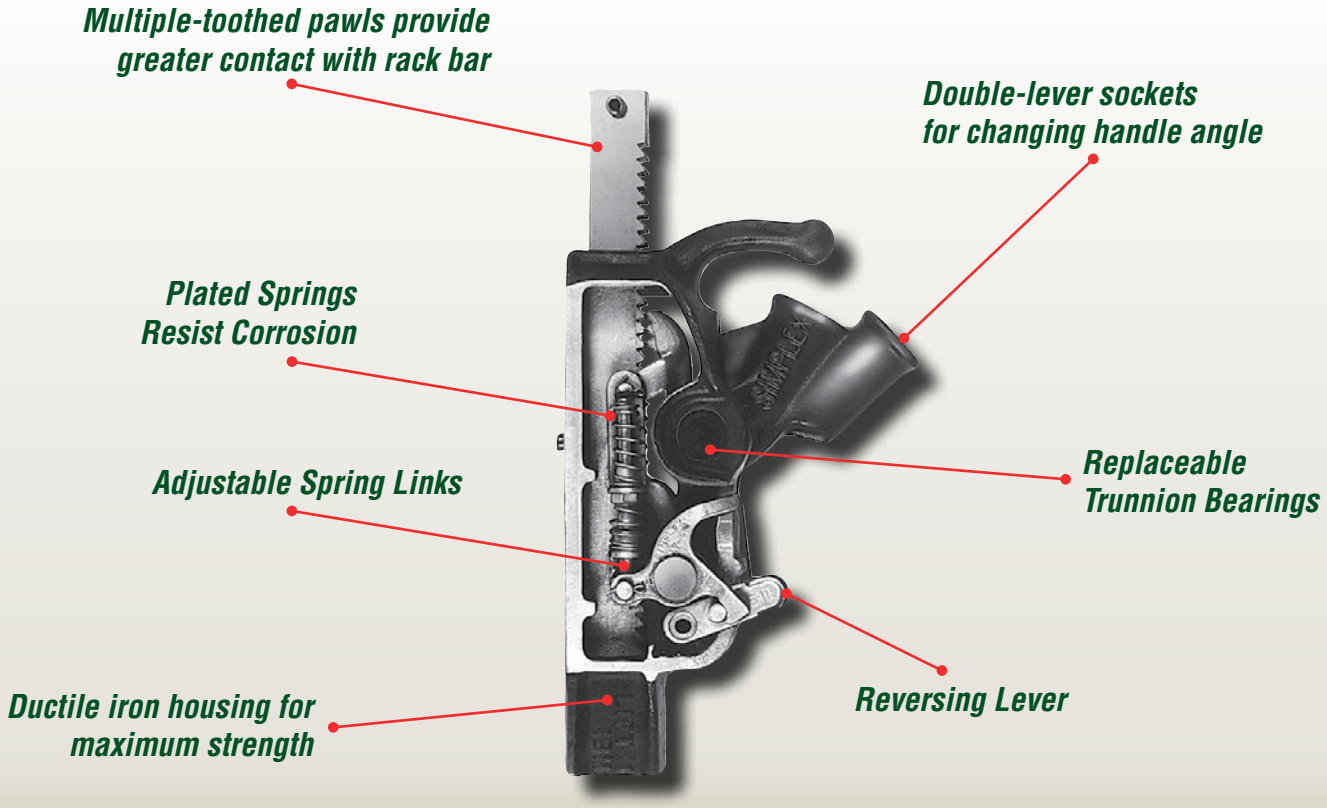
SECTION INDEX

INTRODUCTION



Ratchet Jack Model Shown

SIMPLEX MECHANICAL JACKS PRODUCT LINE OVERVIEW

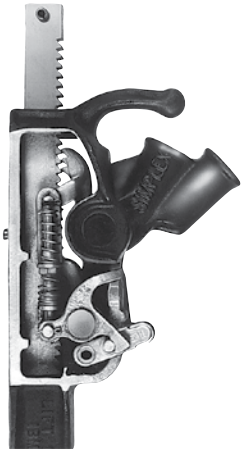
✓ The Industry Standard
With over a century of experience in designing and manufacturing mechanical jacks, Simplex is the undisputed market leader that has set the standard for high quality and reliability in the mechanical jack industry.

✓ The Widest Selection
Only Simplex can offer a full range of Ratchet Jacks, Screw Jacks, Superjacks, Push/Pull Jacks and Mine Roof Supports to fit a broad range of applications and use.

✓ Unsurpassed Quality
Simplex Jacks have proven to withstand the toughest application and use in today's market. Each Jack component is carefully inspected and assembled by highly skilled assemblers and tested to meet or exceed ANSI B30.1 Safety Standards.

✓ Value and Service
Simplex stands behind every mechanical jack we sell with a NO SMALL PRINT WARRANTY supported by our global network of Industrial Distributors and Authorized Service Centers.

METHODS OF MECHANICAL FORCE



Ratchet Jacks

Ratcheting mechanism used to create leverage for movement.

Screw Jacks

Mechanical advantage is gained by using a specialized Acme threaded screw.

POINTS TO REVIEW WHEN SELECTING A MECHANICAL JACK

Determine the Proper Jack for your Application

Ratchet jacks are designed for lifting and positioning up to 15 tons. For higher tonnage applications, you should consider using our Superjacks for lifting and sustaining up to 50 tons. For all sustaining load applications, consider the screw jack as a suitable solution up to 20 tons.

Handle Effort

Reference each table within this section to determine the amount handle effort required for an application. Each model number specifies the amount of force required per ton. Also consult your local codes, safety standards or contracts that may specify maximum allowable handle effort per user. Proper jack sizing is required to maintain reasonable handle effort.

Lift and Height of Jack

The available clearance under the load often determines which jack should be used. For the greatest versatility, select a jack that has the longest available stroke, but still fits under the load. The ratchet jack toe can be used in very low clearance situations where other products are not suited.

Travel Speed

Ratchet jacks provide greatest travel per stroke, but accommodate lighter loads. Superjacks provide greater lifting capacity with less movement per stroke.

Portability

If ease of portability is a factor, consider lightweight **Ratchet Jack models**: A1022, A1538, A1029-R, A1029-L or **Superjack models**: A1510C, A2510C, A2515C, A3510D, A5010B.

MECHANICAL JACKS

Ratchet Jacks are ideal for mills and factory maintenance, oil fields, shipyards, farms, machinery riggers, construction contactors, mining operators, bridge and rail car repair and heavy-duty industrial maintenance. These are the most versatile, general-purpose jacks available. Rugged construction permits safe, efficient lifting, lowering, skidding, moving, sustaining and leveling with the important SIMPLEX feature that provides full lift capacity on the toe or on the cap.

Super Jacks are used for inspecting and renewing journal brasses, bridge, tank and structural steel erectors, presses, shipbuilding and all industries where powerful, all-position jacks are required. These jacks will hold the load indefinitely and offer heat treated, alloy steel forgings, bronze nuts, ball bearings, positive shoulder stops and high gear ratios. The ratchet mechanisms are fully enclosed to protect them from the elements.

Trench Braces provide a safe, efficient and economical solution for utility maintenance, along with protection against cave-ins and costly reconstruction. Blunt, drop forged steel safety lever nut prevents injuries and damage. The ball and socket joints provide maximum tilting action with lugs at each end to ensure quick adjustment and tight grip at all angles. The pipe sleeve can be used to adapt the brace to the width of the trench.

Screw Jacks are suitable for house movers, leveling, supporting, shop and factory maintenance, riggers, locomotive repairs, drillers and farm applications. Malleable housings are lighter and unbreakable. A hardened, large chrome-moly ball floating cap centers the load automatically and reduces friction by 88%. The steel cap is constructed of corrugated, drop-forged steel with a self-leveling 9 degree float.

Push-Pull Jacks are essential for any maintenance repair or production work in all types of shops and field applications. Steamboat Jacks are used on the construction of bridges and concrete and steel engineering projects. Gravity type pawl is used on boats and barges.

Mine Roof Supports are designed for putting up cross timbers and steel beams, aligning steel mine cars, a temporary prop in connection with loading equipment, pulling up and removing slack in power cables, pulling and pushing conveyor lines and controlling the tail piece. These mine roof supports are available in a ratchet or screw style head. The A9225 double acting mechanism lifts and lowers on both the up and down stroke. The 139A uses the screw type and is ideal for tight quarters. The M9 and M17 screw assemblies and bases can be adapted to a 2" pipe, which is universally used in mines with coal seams of varying heights.

MECHANICAL JACKS

Ratchet Jacks

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 are used extensively by structural movers, riggers & maintenance crews.

Ratchet Family Shown
For additional models, see table.

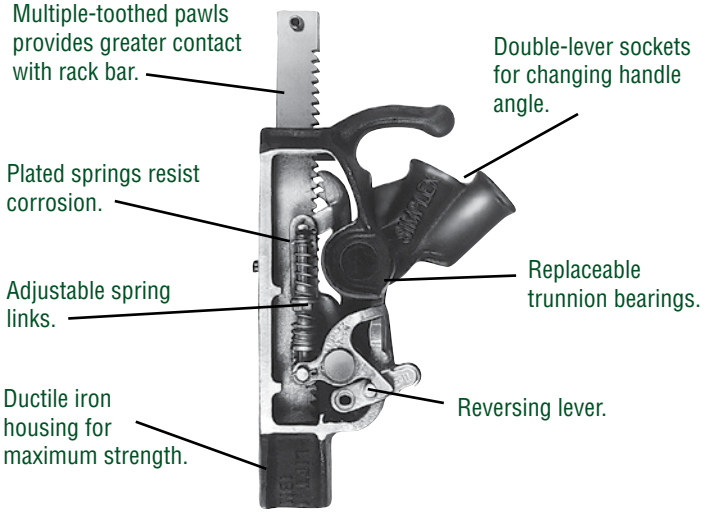
SIMPLEX ADVANTAGES

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

CARRYING HANDLE
Right and left side carrying handles make the positioning and transporting of the 10, 15 and 20 ton ratchet jacks simple.

HYDRAULIC JACKS
Please refer to our Hydraulic Jack section for a complete line of Toe Jacks to fit your lifting needs.
- Pg. 103

Advisory
Please refer to pages 4 & 5 for a complete list of safety tips and recommendations to ensure that your Simplex equipment will perform to its full potential.



MECHANICAL JACKS

Ratchet Jacks

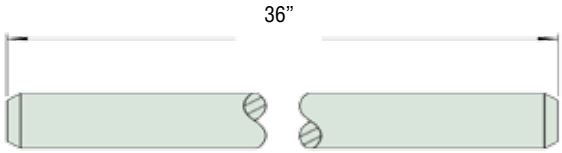
A1538 Utility Pole Jack Shown
For additional models, see table.

I-Beam Base Order # - 10800

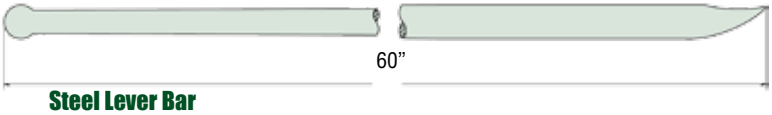
Alloy Chain Order # - 10760

A1538 Utility Pole Jack is used for pole lining maintenance by telephone, light, power and railroad companies and has a lightweight aluminum alloy housing. The I-Beam assures a firm foundation - ratchet jack base pivots for positioning and the alloy chain inter-connects to the jack to the pole for lifting objects upwards.

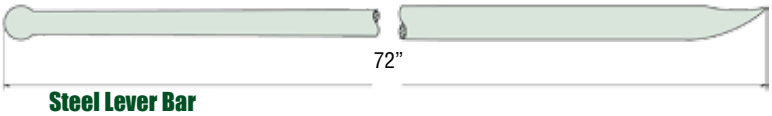
A1022 Ratchet Jack Shown
For additional models, see table.



Steel Lever Bar
10640



Steel Lever Bar
10665



Steel Lever Bar
10675

Product Ordering & Dimensional Specifications

Model	Supporting Cap. (tons)	Lifting Cap. (tons)	Stroke (in)	Handle Effort per Ton (lbs)	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	1 3/4	5 x 7 3/8	28	*10640*	36	1	8
85A	5	5	10	32	1 3/4	5 x 7 3/8	30	*10640*	36	1	8
86A	5	5	13	32	1 3/4	5 x 7 3/8	35	*10640*	36	1	8
1017	10	10	9 1/2	30	2	6 x 8 3/4	40	*10665*	60	1 1/4	17
A1022	10	10	12	30	2 1/4	6 1/2 x 10 1/4	42	*10665*	60	1 1/4	17
22B	10	10	12	30	2 1/4	6 1/2 x 10 1/4	70	*10665*	60	1 1/4	17
A1538	15	8	22	32	-----	8 x 8 1/4	62	*10675*	72	1 1/4	20
24A	20	15	13	32	2 1/4	8 x 10 1/4	93	*10675*	72	1 1/4	20
2029	20	15	18	32	2 1/4	8 x 11	104	*10675*	72	1 1/4	20

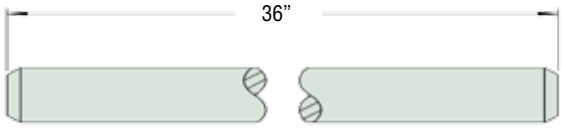
Note: 10665 & 10675 lever bars are interchangeable. The longer 10675 bar results in lower handle efforts.

MECHANICAL JACKS

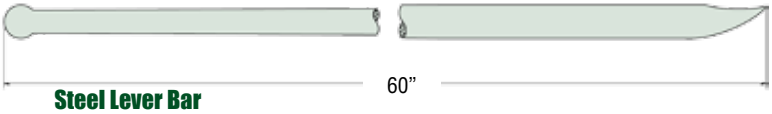
Reel Jacks

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 Jack Family Shown
For additional models, see table.



Steel Lever Bar
10640

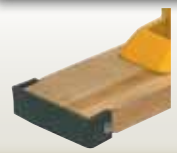


Steel Lever Bar
10665

SIMPLEX ADVANTAGES

- ✔ *Double-lever sockets for jacking in close quarters.*
- ✔ *Multiple-tooth pawls for strength & safety.*
- ✔ *Drop-forged, alloy steel, heat-treated components.*
- ✔ *Adjustable spring links for added serviceability.*
- ✔ *Plated springs to resist corrosion.*
- ✔ *Tough hardwood bases laminated for extra strength.*
- ✔ *Precision machining throughout.*
- ✔ *Steel lever bars sold separately.*

CARRYING HANDLES
Convenient center mounted carrying handle makes this jack easy to position and move.



LAMINATED BASE
Treated laminated hardwood base provides solid support along with durability to withstand harsh conditions.

*** 10675 Lever Bar can be substituted with order number 10665 for reduced handle effort.**

Product Ordering & Dimensional Specifications

Model	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	10	20	22	11 5/8	36-84	31 1/8	86	**10665*	60	1 1/4	17
A1029-L	10	20	22	11 5/8	36-84	31 1/8	86	**10665*	60	1 1/4	17

MECHANICAL JACKS

Super Jacks

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.

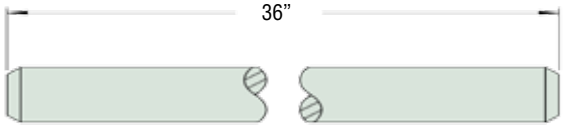
SIMPLEX ADVANTAGES

- ✔ *Ratcheting screw jack design.*
- ✔ *Holds the load indefinitely without creep down.*
- ✔ *Positive Shoulder Stops for safety.*
- ✔ *Available with aluminum or ductile iron housing.*
- ✔ *Ball Bearings for smooth operation & low handle effort.*
- ✔ *Jacking capacity ranges 15 - 50 tons.*
- ✔ *Low backsaving handle effort.*
- ✔ *Steel lever bars sold separately.*

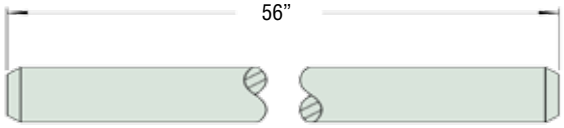
REVERSAL RATCHET
Raise or lower the load precisely with the reversal ratchet socket with quick spin handle.

LOAD CAP
Steel serrated load cap prevents the load from possible slippage.

Super Jack Family Shown
For additional models, see table.



Steel Lever Bar
10640



Steel Lever Bar
10660

Product Ordering & Dimensional Specifications

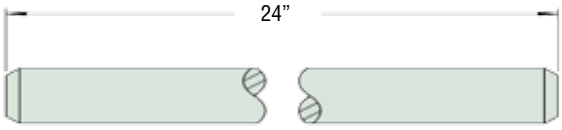
Model	Cap. (tons)	Min. Height (in)	Stroke (in.)	Handle Effort Per Ton (lbs.)	Base Dia. (in)	Weight (lbs)	Steel Lever Bars			
							Order Number	Length (in)	Dia. (in)	Weight (lbs)
A1510C	15	10 1/4	5	9	5 1/2	28	*10640*	36	1	8
2510C	25	10 1/4	5	6	5 1/2	43	*10640*	36	1	8
A2510C	25	10 1/4	5	6	5 1/2	34	*10640*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

MECHANICAL JACKS

Screw Jacks

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."

Mechanical Screw Jack Family Shown
See table for additional models.



Steel Lever Bar
10621

- 36" and 42" Lengths Also Available - See Table -

SIMPLEX ADVANTAGES

- ✔ *Ductile iron bodies for strength.*
- ✔ *Positive welded stop for safety.*
- ✔ *Supports loads indefinitely, and won't creep down.*
- ✔ *Carry handle for ease of transport.*
- ✔ *Steel lever bars sold separately.*
- ✔ *Four way head for easy positioning of lever bar.*
- ✔ *Tilt saddle assists in centering load point.*

LOAD CAP
Drop forged steel load cap is serrated to prevent load slippage.

SITE HOLE
Built in site hole for safety, allows the user to determine the height of the lifting screw without guessing.

Product Ordering & Dimensional Specifications

Model	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	12	11 5/8	5 3/4	16	5 1/2	12	10621	24	3/4	4
1 1/2 x 12	03120	12	15 5/8	9 3/4	16	6 1/4	16	10621	24	3/4	4
2 x 8	03165	20	11 3/4	5	15	6	17	10635	36	13/16	6
2 x 10	03195	20	13 3/4	7	15	6 1/2	20	10635	36	13/16	6
2 x 12	03210	20	15 3/4	9	15	6 3/4	24	10635	36	13/16	6
2 1/2 x 8	03240	24	13	4 1/4	15	6 1/2	28	10655	42	1 1/8	12
2 1/2 x 12	03255	24	17	8 1/4	15	7 1/4	37	10655	42	1 1/8	12
2 1/2 x 18	03300	24	23	14 1/4	15	8 1/2	52	10655	42	1 1/8	12

MECHANICAL JACKS

Screw & Cap Assemblies

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.

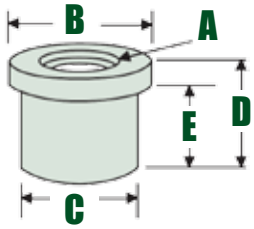
SIMPLEX ADVANTAGES

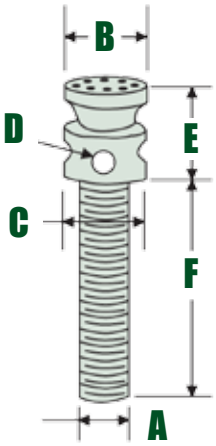
- ✔ *Holds the load indefinitely without creep down.*
- ✔ *Versatile accessories for outrigger supports, holding and adjusting concrete forms, or for any application requiring special holding or shoring support.*
- ✔ *The shoulder nut is placed into piping or another fixed form, and the screw & cap assembly 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%.*

Advisory

Please refer to pages 4 & 5 for a complete list of safety tips and recommendations to ensure that your Simplex equipment will perform to its full potential.

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





Product Ordering & Dimensional Specifications

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

Product Ordering & Dimensional Specifications

Model	Tank Dia. (ft-in)	Pipe Dia. (in)	"DB" (in)	"HB" (in)	"CB" (in)	Qty. Required	
						Under 12 Ft.	Over 12 Ft.
For Side Pipe Connections							
4406	3-6	---	14	6 1/2	4	4	4
4406	4-0	---	16	6 3/8	3 1/2	4	4
4406	4-6	---	18	6 3/4	3 1/2	4	4
4406	5-0	---	20	7 1/8	3 1/2	4	4
4406	5-6	---	22	7 1/2	3 1/2	4	4
4406	6-0	---	24	6	1 1/2	4	4
4406	6-6	---	26	6 1/8	1 1/2	4	4
4406	7-0	---	28	6 1/2	1 1/2	4	6
4406	7-6	---	30	6 7/8	1 1/2	4	6
4406	8-0	---	32	7 1/4	1 1/2	6	8
4406	8-6	---	34	7 5/8	1 1/2	6	8
4406	9-0	---	36	8	1 1/2	6	8
4410	9-6	---	38	10 3/8	3 1/2	8	8
4410	10-0	---	42	10 3/4	3 1/2	8	8
For Bottom Pipe Connections							
4410	3-6	2	14	10 1/2	8	4	4
4410	4-0	2 1/2	16	11 7/8	9	4	4
4410	4-6	2 1/2	18	12 1/4	9	4	4
4414	5-0	2 1/2	20	14 5/8	11	4	4
4414	5-6	2 1/2	22	15	11	4	4
4414	6-0	3	24	16 3/8	12	4	4
4414	6-6	3	26	14 5/8	10	4	4
4418	7-0	4	28	18 1/4	13 1/4	4	6
4418	7-6	4	30	18 5/8	13 1/4	4	6
4418	8-0	4	32	19	13 1/4	6	8
4418	8-6	5	35	20	14	6	8
4418	9-0	5	37	19 1/2	13	6	8
4418	9-6	5	39	20	13	8	8
4418	10-0	6	41	21	14	8	8

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

Model	Order Number	Base Dia. "A" (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

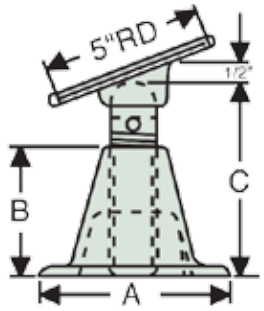
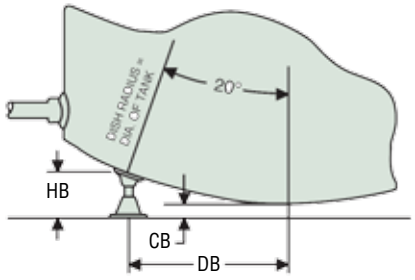
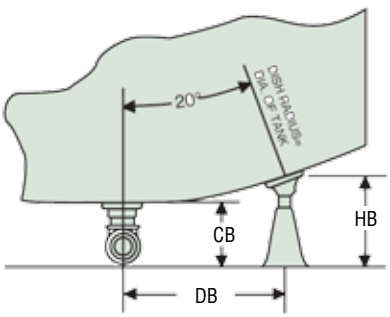


FIGURE 1





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".

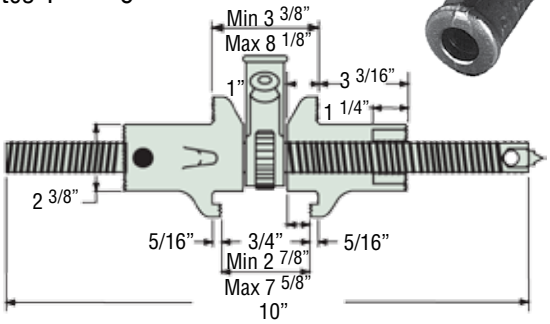
Product Ordering & Dimensional Specifications					
Model	Dim. "A" (in)	Travel Length (in)	Barrel Length (in)	Screw Dia. (in)	Weight (lbs)
ER-10	23	14	18	2	57
ER-20	29	20	24	2	66
ER-30	35	26	30	2	74
ER-40	47	38	42	2	92

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.



Product Ordering & Dimensional Specifications											
Model	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	*10621*	24	3/4	4

Spreader Jack 3A Shown

SPREADER JACK

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.

Product Ordering & Dimensional Specifications

Model	Sustaining Cap. (tons)	Minimum Height (in)	Operable Rise (in)	"A" Across Flats (in)	Weight (lbs)
3A	3	3	1	2	3 1/4

2P Planer Jack Shown

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.

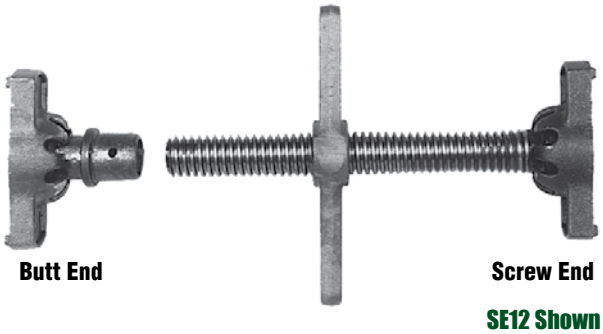
Product Ordering & Dimensional Specifications

Model	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

TRENCH BRACES

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.

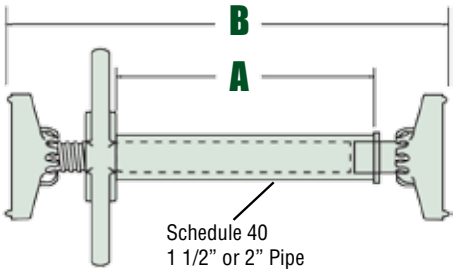
Simplex trench braces are designed for use with standard schedule 40 pipe. Screw end models SE-12, SE-16 and butt end model BE-25 use 1 1/2" diameter pipe. Model SE-18 and butt end BE-35 use 2" diameter pipe. Pipe should be cut to length based on the chart below and drawing in Fig. 1.



SE12 Shown

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

Product Ordering & Dimensional Specifications					
Model	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	1 1/2	BE-25	16	22
SE-18	10	2	BE-35	18	25 1/2



(Fig. 1) All Trench Brace Models

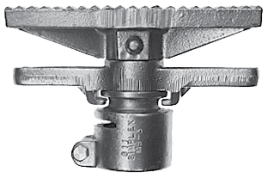
Quick Reference Timber / Trench Brace Equivalency Tables*

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

Product Ordering & Dimensional Specifications											
Trench Depth (ft)	Horizontal Spacing (ft)	Cross Brace				Wales		Uprights (in)			
		Width of Trench (ft)			Vertical Spacing (ft)	Size (in)	Vertical Spacing (ft)	Max. Allowable Horizontal Spacing (ft)			
		up to 4	up to 6	up to 8				4'	5'	6'	8'
Soil Type - A P^a = 25 x H + 72 psf (2ft. Surcharge)											
5 to 10	up to 6	SE12 SE16	SE12 SE16	SE18	4	---		---	---	2"x 6"	---
	up to 8	SE12 SE16	SE12 SE16	SE18	4			---	---	---	2"x 6"
	up to 10	SE18	SE18	SE18	4	8 x 8	4	---	2"x 6"	---	---
	up to 12	SE18	SE18	---	4	8 x 8	4	---	---	2"x 6 "	---
10 to 15	up to 6	SE12 SE16	SE12 SE16	SE18	4	---		---	---	3"x 8"	---
	up to 8	SE18	SE18	---	4	8 x 8	4	2"x 6"	---	---	---
Soil Type - B P^a = 45 x H + 72 psf (2ft. Surcharge)											
Trench Depth (ft)	Horizontal Spacing (ft)	Cross Brace			Vertical Spacing (ft)	Wales		Uprights (in)			
		Width of Trench (ft)				Size (in)	Vertical Spacing (ft)	Max. Allowable Horizontal Spacing (ft)			
		up to 4	up to 6					3'			
5 to 10	up to 6	SE-18	SE-18		5	6 x 8	5	2"x 6"			

MINE ROOF SUPPORTS

Head Assembly
Model 09167



Type S Head
36 square inches
in support area.

Base Assembly
Model 09220

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

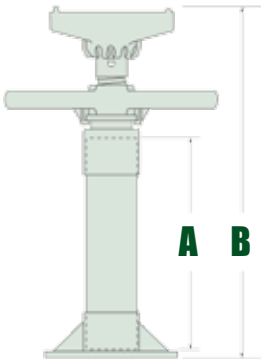
Simplex head assemblies are designed for roof support in mines and other areas where ceiling heights vary greatly. Use your own pipe to custom build a support for nearly any application.

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. The 8 ton models are available with either FS or S style heads, and the 16 ton model is available with FS style head only.

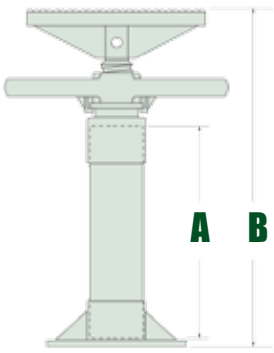
For economy, use the import version. If U.S. manufacture is required, use the domestic version. Simplex quality is assured with either choice.

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.



09167 & 09267



09309

Product Ordering & Dimensional Specifications		
Model	"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

Mine Roof Support Head Assemblies

Product Ordering & Dimensional Specifications									
Model	*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	8	15	73 1/4	93	---	19
MS17L-FS	----	09309	FS	16	15	46 1/4	68	5 3/4	34
Base MB-17	*09220*	--------	---	16	---	---	---	---	6

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.

Mine Support A9225

Mine Support 139A

Complete Unit Ratchet Lever Series - A9225 Family

Product Ordering & Dimensional Specifications				
Model	*Order Number*	Minimum Height (in)	Stroke (in)	Weight (lbs)
Complete Unit Ratchet Lever Series - A9225 Family				
E	*09602*	39	20	29
F	*09603*	39	20	29
S	*09620*	39	20	29
E	*09606*	45	26	33
F	*09607*	45	26	33
S	*09621*	45	26	33
E	*09610*	57	38	36
F	*09611*	57	38	36
S	*09622*	57	38	36
E	*09614*	69	38	39
F	*09615*	69	38	39
S	*09623*	69	38	39
E	*09616*	75	38	42
F	*09617*	75	38	42
S	*09624*	75	38	42
E	*09618*	88	38	48
F	*09619*	88	38	48
S	*09625*	88	38	48
Complete Unit Screw Extension Series - 139A Family				
E	*09802*	42	24	50
F	*09803*	42	24	50
S	*09820*	42	24	50
E	*09806*	48	30	52
F	*09807*	48	30	52
S	*09821*	48	30	52
E	*09810*	54	36	54
F	*09811*	54	36	54
S	*09822*	54	36	54
E	*09814*	66	36	58
F	*09815*	66	36	58
S	*09823*	66	36	58
E	*09818*	78	36	64
F	*09819*	78	36	64
S	*09824*	78	36	64

HEAD STYLES

***E* Type Head**

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

***F* Type Head**

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

***S* Type Head**

36 square inches in support area.