

Custom Select Ordering System for Bernard Q-Guns

Bernard Q-Gun™

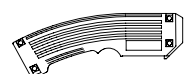
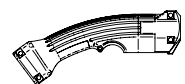
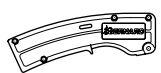
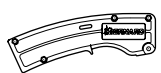
The part number shown here, Q4010AE8EM, is an example of a typical configuration. It consists of a 400 AMP Q-Gun with a 15' cable, curved handle, locking trigger, rotatable short 45° neck, 7400 series 0.035" contact tip and a Miller® style direct plug.

 Inert Gas Equipment
 2

Q40
10
A

AMP and Cable Type	
Q15	150 AMP max. wire size: .045" (1.2 mm)
Q20	200 AMP max. wire size 1/16" (1.6 mm)
Q30	300 AMP max. wire size: 5/64" (2.0 mm)
Q40	400 AMP max. wire size: 5/64" (2.0 mm)
Q50	500 AMP max. wire size: 3/32" (2.4 mm)
Q60	600 AMP max. wire size: 1/8" (3.2 mm)
S30	300 AMP steel "Monocoil" max. wire size: 5/64" (2.0mm)
S40	400 AMP steel "Monocoil" max. wire size: 5/64" (2.0mm)
S50	500 AMP steel "Monocoil" max. wire size: 3/32" (2.4 mm)
S60	600 AMP steel "Monocoil" max. wire size: 1/8" (3.2 mm)

	Cable Length	
	feet	m
08	8	2.44
10	10	3.05
12	12	3.66
15	15	4.57
20	20	6.16
25	25	7.63



Handle and Trigger		
150 AMP Curved Handle Standard Cable	Standard trigger	A
200, 300 AMP Curved Handle Standard Cable	Standard trigger Locking trigger Dual pull trigger	A B C
400 AMP Curved Handle Standard Cable	Standard trigger Locking trigger Dual pull trigger Dual schedule switch Dual schedule switch w/lock	A B C D E
150-400 AMP* OXO Style Small Curved Handle Standard or Steel Monocoil	Standard trigger Locking trigger	T U
400-600 AMP* OXO Style Large Curved Handle Standard or Steel Monocoil	Standard trigger Locking trigger Dual pull trigger Dual schedule switch Dual schedule switch w/lock	G H I K L

Combine steel Monocoil cable with OXO style handle and QuikTip for gun similar to former OXO APX gun.

*Only OXO style handle options can be used with Steel Monocoil power cable.

Select the right MIG gun to fit your precise application requirements.

A Bernard Q-Gun configured with Custom Select really is the right tool for the job. Why settle for anything less?

- Build a part number for a new Q-Gun by selecting:
Amperage, Cable Length, Handle and Trigger, Neck, Contact Tip and Direct Plug.

Bernard Q-Guns configured with Custom Select are fitted at the factory with these Diffusers and Nozzles.

- Bernard Q-Guns configured with electrode sizes of 1/16" or smaller will be fitted at the factory with tube head diffusers where available.
- A wide variety of alternative front end parts are available to fit special applications.

Custom Select Ordering System for Bernard Q-Guns



Neck			
A	Rotatable, short	30°	QT2-30
B	Rotatable, short	45°	QT2-45
C	Rotatable, short	60°	QT2-60
J	Rotatable, short	80°	QT2-80
D	Rotatable, medium	30°	QT3-30
E	Rotatable, medium	45°	QT3-45
F	Rotatable, medium	60°	QT3-60
K	Rotatable, medium	80°	QT3-80
G	Rotatable, long	30°	QT5-30
H	Rotatable, long	45°	QT5-45
I	Rotatable, long	60°	QT5-60
N	Fixed, short	30°	QT2-30
O	Fixed, short	45°	QT2-45
P	Fixed, short	60°	QT2-60
W	Fixed, short	80°	QT2-80
Q	Fixed, medium	30°	QT3-30
R	Fixed, medium	45°	QT3-45
S	Fixed, medium	60°	QT3-60
X	Fixed, medium	80°	QT3-80
T	Fixed, long	30°	QT5-30
U	Fixed, long	45°	QT5-45
V	Fixed, long	60°	QT5-60

Contact Tip	
8	Centerfire™ T Series tip
7	Elliptical, 7400 series, 1.25" long, std.
5	Quik Tip™
1	Elliptical, 1500 series, 2.00" long, HD

Wire Size		
	Inches	mm
A	.023	0.6
B	.030	0.8
C	.035	0.9
D	.039	1.0
E	.045	1.2
H	.052	1.4
I	1/16	1.6
K	5/64	2.0
L	3/32	2.4
M	7/64	2.8
N	1/8	3.2

Direct Plug	
B	Bernard®
C	L-Tec®
E	Euro®
H	Hobart®
L	Lincoln®
M	Miller®
N	National®
O	OXO®
S	Tweco® 4 (Lincoln lead)
T	Tweco® 4 (std. lead)
U	Tweco® 4 (two prong twist-lock lead)
W	Tweco® 5 (std. lead)

Aluminum

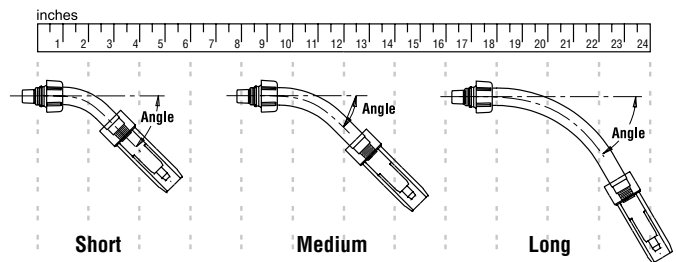
Wire Size		
	Inches	mm
Q	.035	0.9
R	3/64	1.19
S	1/16	1.6

Typically Selected Necks by Amperage

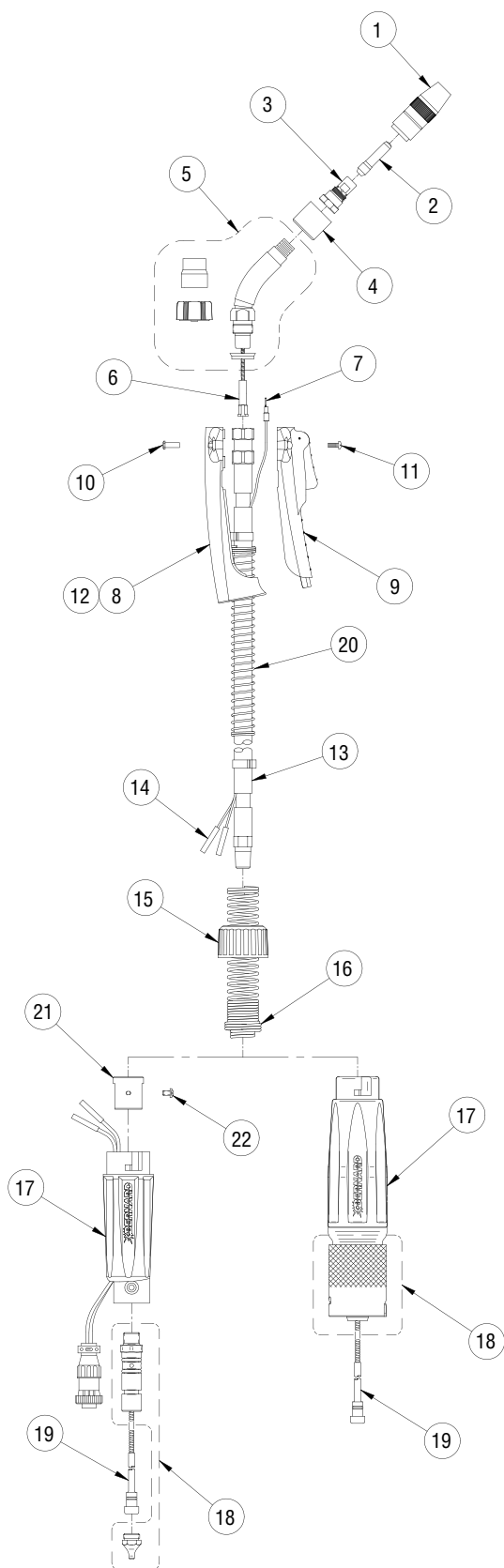
150 - 200 AMP	QT2-45
300 - 400 AMP	QT3-45
500 - 600 AMP	QT5-60

Illustrated below are the necks defined for Standard Q-Guns.

Short 45° QT2-45, standard for 150, 200 AMP
 Medium 45° QT3-45, standard for 300, 400 AMP
 Long 60° QT5-60, standard for 500, 600 AMP

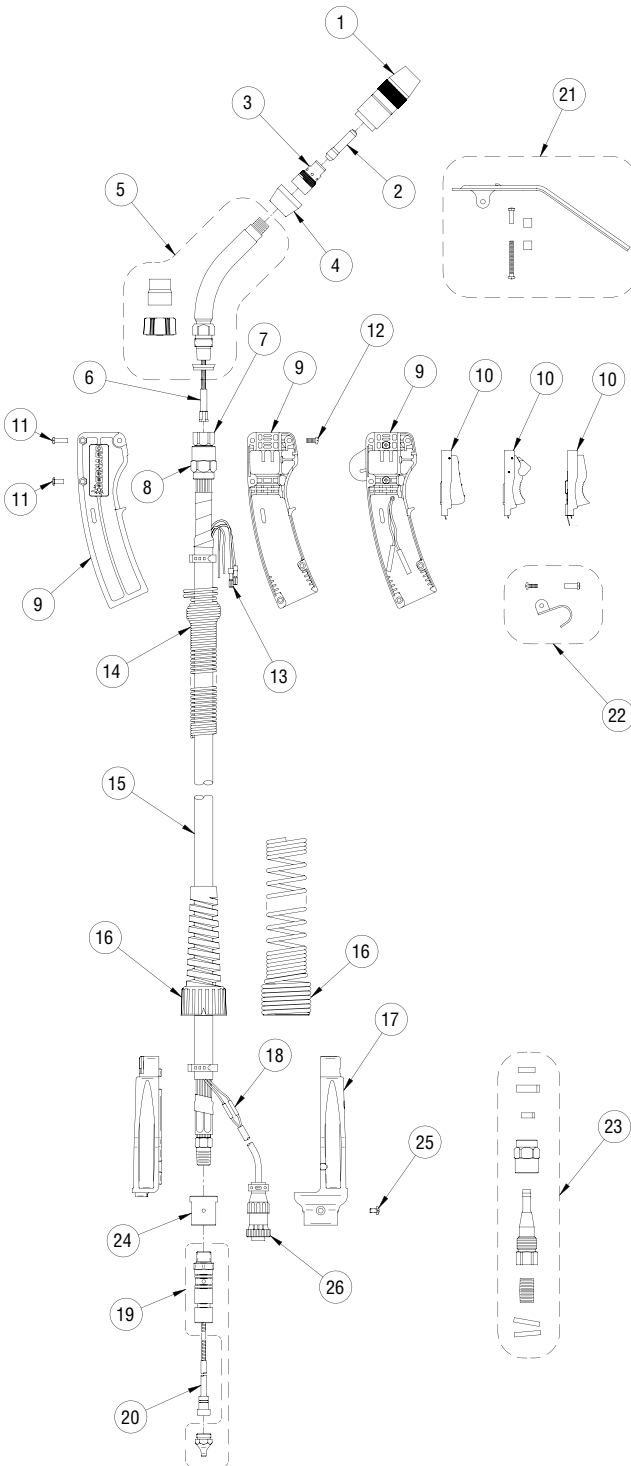


Q150 Replacement Parts List



Item	Part No.	Description
1	See Centerfire™ spec sheet	Nozzle assembly
2	See Centerfire™ spec sheet	Contact tip
3	See Centerfire™ spec sheet	Gas diffuser
4	See Centerfire™ spec sheet	Cap
5	See neck spec sheet	Neck
6	See jump liner spec sheet	Jump liner
7	2660001	Terminal, quick disconnect (2 req'd)
8	1780062	Handle half, upper
9	2620054	Switch assembly, handle half, lower
10	4207	Post fastener (2 req'd)
11	4209	Handle screw (2 req'd)
12	1880194	Handle kit -(includes: (1) #8, (1) #9, (2) #10, (2) #11)
Replacement Cable with Fittings		
13	1060107	8' (2.44 m)
	1060097	10' (3.05 m)
	1060098	12' (3.66 m)
	1060099	15' (4.57 m)
	1060100	20' (6.10 m)
1060101	25' (7.62 m)	
14	4932	Butt connector (2 req'd)
15	2520007	Cap, rigid strain relief
16	2520048	Spring, strain relief
Rigid Strain Relief		
17	2520073	Strain relief with installed gas pin (Bernard direct plug)
	2520047	Strain relief (Euro direct plug)
	2520047E	Strain relief with trigger cable adapter (OXO, Tweco 4 w/twist lock)
	2520047H	Strain relief with trigger cable adapter (L-Tec, Hobart direct plug)
	2520047L	Strain relief with trigger cable adapter (Lincoln direct plug)
	2520047T	Strain relief with trigger cable adapter (National, Tweco direct plug)
	2520047M	Strain relief with trigger cable adapter (All other direct plugs)
18	See direct plug spec sheet	Direct plug components
19	See Liner spec sheet	Liner
20	2520049	Spring, strain relief
21	1010027	Adapter block (not req'd on Bernard or Euro direct plug)
22	W11127-002	Screw, strain relief (not req'd on Bernard direct plug)

Q200/Q300/Q400 Replacement Parts List



Item	Part No.			Description
	Q200	Q300	Q400	
1	See Centerfire™ spec sheet			Nozzle assembly
2	See Centerfire™ spec sheet			Contact tip
3	See Centerfire™ spec sheet			Gas diffuser
4	See Centerfire™ spec sheet			Cap
5	See neck spec sheet			Neck
6	See jump liner spec sheet			Jump liner
7	4213B	4213B	4313B	Stay-Tite™ end fitting
8	4305	4305	1540003	Stay-Tite™ cone nut
NS	4991	4991	1520017	Conduit clamp (2 req'd)
NS	4823	4823	4939	Jacket clamp (2 req'd)
9	1880155	1880155	1880198	Handle kit, standard trigger*
				Handle kit, locking trigger*
				Handle kit, dual pull trigger*
	N/A	N/A	DSA-1	Handle kit, D/S, standard trigger*
10	5662	5662	5662	Trigger, standard
	5662L**	5662L**	5662L**	Trigger, locking
	2690001	2690001	2690001	Trigger, dual pull, 3 wire (with insulated terminals)
11	4207	4207	4207	Post fastener (1 req'd - q200 & q300) (5 req'd - q400)
	2030004	2030004	N/A	Post fastener, short (4 req'd)
12	4209	4209	4209	Handle screw (5 req'd)
	2660001	2660001	2660001	Terminal, quick disconnect (2 req'd)
	N/A	N/A	2520042	Handle spring
	Replacement Cable With Fittings			
	1060120	1060108	1060114	8' (2.44 m)
	1060121	1060109	1060115	10' (3.05 m)
1060122	1060110	1060116	12' (3.66 m)	
1060123	1060111	1060117	15' (4.57 m)	
1060124	1060112	1060118	20' (6.10 m)	
1060125	1060113	1060119	25' (7.62 m)	
16	2520033	2520033	2520041	Strain Relief
17	Rigid Strain Relief Kit (Includes top and bottom halves)			
	2520073	2520073	2520073	Strain relief with installed gas pin (Bernard direct plug)
	2520069	2520069	2520069	Strain relief (euro direct plug)
	2520066	2520066	2520066	Strain relief (all other direct plugs)
18	4932	4932	4932	Butt connector (2 req'd)
19	See Direct Plug Spec Sheet			Direct plug components
20	See Liner Spec			Sheet liner
21	1880012	1880012	1880012	Heat shield kit (includes heat shield, screws, posts, & spacers)
22	1790002	1790002	1790002	Hang up hook kit (Includes hook, screw, & post)
23	1982	1983Q	1984Q	Rear Stay-Tite™ repair kit†
24	1010027	1010027	1010027	Adapter block (Not req'd on Bernard or Euro direct plug)
25	W11127-002	W11127-002	W11127-002	Screw, strain relief (not req'd on Bernard direct plug)
26	GN2021	GN2021	GN2021	Electrical plug - Non D/S (Not req'd on Bernard or Euro direct plug)
	20006A	20006A	20006A	Electrical plug - D/S (Not req'd on Bernard or Euro direct plug)

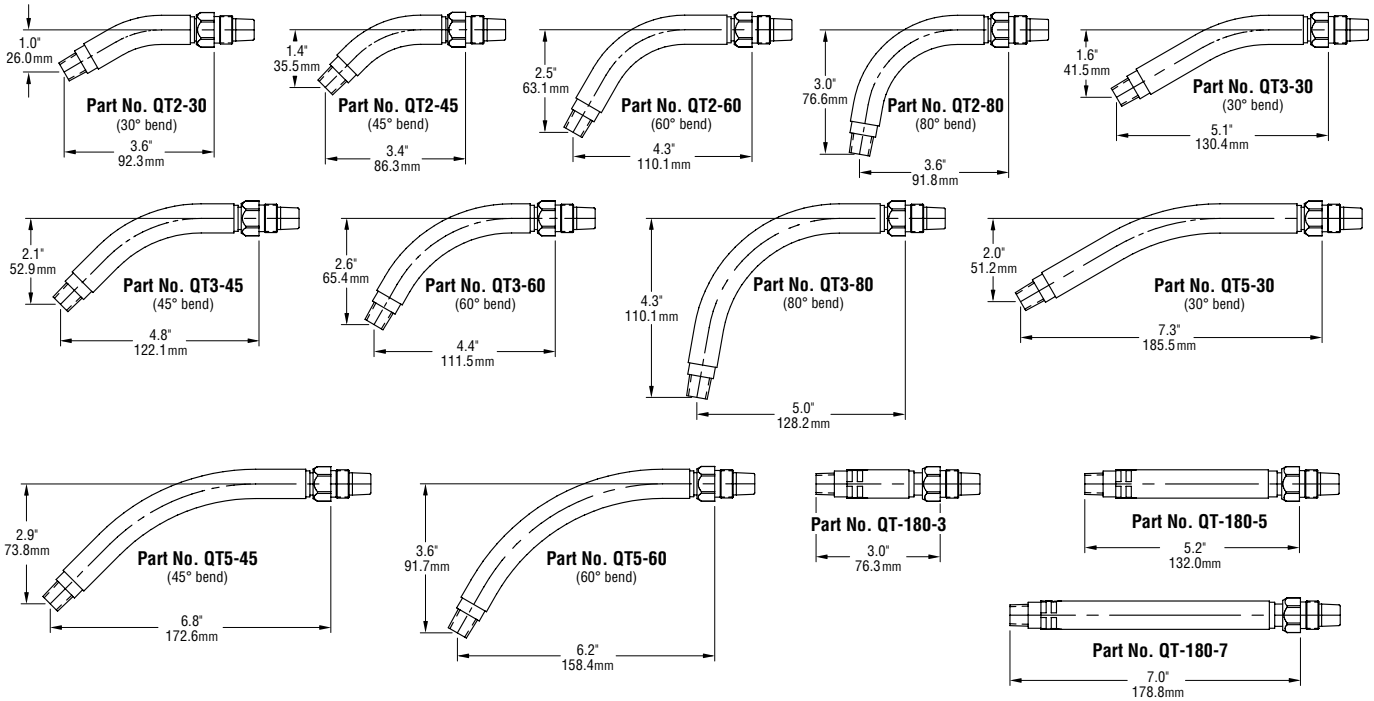
*1880155 & 1880198 Handle Kits include halves, screws & posts.

DSA-1 Handle Kits include halves, screws, posts, toggle switch and guard.

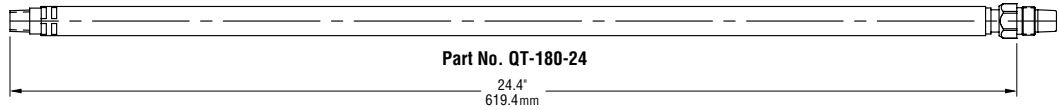
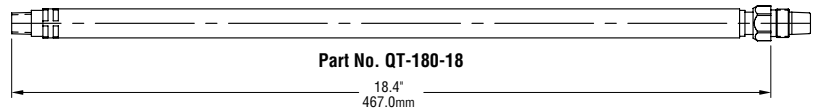
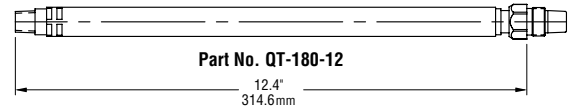
**Patent Pending

†1982, 1983Q & 1984Q Rear Cone Nut Repair Kits include jacket clamp, conduit clamp, cone nut, end fitting, nipple, spacer & butt connectors.

Available Necks

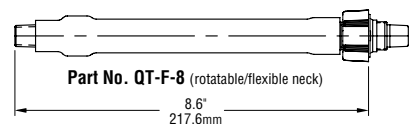
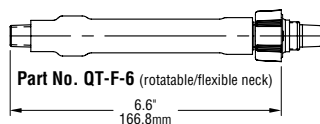
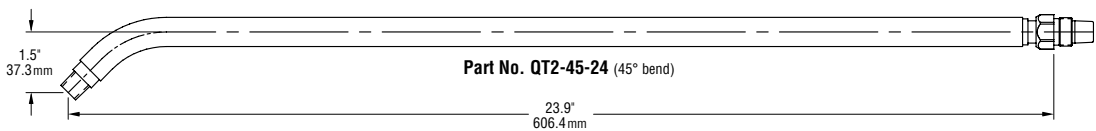
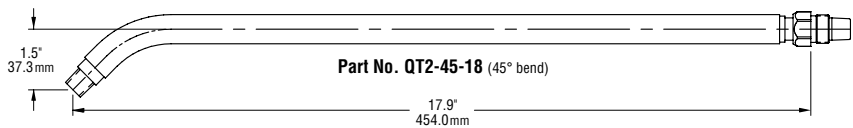
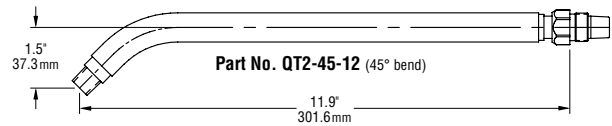


Note: Diffuser thread size: 1/4-18 NPT "Bernard Special."



All body tubes (except the QT-F-6 and QT-F-8) include the components required to make the body tube fixed (wrench-tight) or rotatable (hand-tight).
Patent Pending

- Part No. 1840057** (Wrench-tight component)
- Part No. 1840031** (Rotatable component)
- Part No. 4780** (Rotatable component)



Replacement Liners

Standard Liners

Wire Size	Gun Amperage	Direct Plug	Part No.		
			10' (3.05 m)	15' (4.57 m)	25' (7.62 m)
.023" - .030" (.6 mm - .8 mm)	150A - 600A	All except Tweco 4, L-Tec	N/A*	43015	43025
		Tweco 4, L-Tec		43015T	43025T
.035" - .045" (.9 mm - 1.2 mm)	150A	All except Tweco 4, L-Tec	43110	43115	43125
		Tweco 4, L-Tec	N/A*	43115T	43125T
	200A - 600A	All except Tweco 4, L-Tec	44110	44115	44125
		Tweco 4, L-Tec	N/A*	44115T	44125T
.045" - 1/16" (1.2 mm - 1.6 mm)	200A - 600A	All except Tweco 4, L-Tec	44210	44215	44225
		Tweco 4, L-Tec	N/A*	44215T	44225T
5/64" (2.0 mm)	200A - 400A	All except Tweco 4, L-Tec	N/A*	1920170†	1920172†
		Tweco 4, L-Tec		1920296†	1920298†
	500A - 600A	All except Tweco 4, L-Tec		44315	44325
		Tweco 4, L-Tec		44315T	44325T
3/32" (2.4 mm)	500A - 600A Air-Cooled Only	All except Tweco 4, L-Tec	N/A*	45415	45425
	400A Clean-Air 600A Water-Cooled	All except Tweco 4, L-Tec	N/A*	1920175†	1920177†
7/64" (2.8 mm)	600A Air-Cooled Only	All except Tweco 4, L-Tec	N/A*	45615	45625
1/8" (3.2 mm)				46715	46725

*10' (3.05 m) liner not available. Order 15' (4.57 m) liner and trim to size.

†Liners without outer jacket.

Aluminum / Soft Wire Liners

Wire Size	Gun Amperage	Direct Plug	Part No.		
			10' (3.05 m)	15' (4.57 m)	25' (7.62 m)
.035" (.9 mm)	150A - 600A Nylon	All except Tweco 4, L-Tec	N/A*	43015X	N/A
		Tweco 4, L-Tec		43015XT	
	200A - 600A Steel Coil	All except Tweco 4, L-Tec		1920343	
		Tweco 4, L-Tec		1920346	
3/64" (1.2 mm)	200A - 600A Nylon	All except Tweco 4, L-Tec	N/A*	43115X	N/A
		Tweco 4, L-Tec		43115XT	
	200A - 600A Steel Coil	All except Tweco 4, L-Tec		1920344	1920350
		Tweco 4, L-Tec		1920347	N/A
1/16" (1.6 mm)	200A - 600A Nylon	All except Tweco 4, L-Tec	N/A*	44215X	N/A
		Tweco 4, L-Tec		44215XT	
	200A - 600A Steel Coil	All except Tweco 4, L-Tec		1920345	1920351
		Tweco 4, L-Tec		1920348	N/A

*10' (3.05 m) liner not available. Order 15' (4.57 m) liner and trim to size.

Replacement Instructions and Service

Install Replacement Liner

Insert liner into power pin with cable laying straight. Continue until liner lock is fully seated into power pin. A twisting motion may be necessary to seat O-ring (some direct plugs may require installation of additional components to secure liner).

Making sure cable is straight, trim liner at the nozzle of the neck as follows:

- DS-1 and D-1 Centerfire™ gas diffusers (used with Centerfire™ series tips) = between 5/8" and 3/4".
- 4235 and 4635 gas diffusers (used with 1500 series tips) = 3/8".
4335 and 4435 gas diffusers (used with 7400 or 4200 series tips) = 1-3/8"
- D118Q gas diffusers (used with Quik Tips™) = 7/8".
- D114Q gas diffusers (used with Quik Tips™) = 3/4".

File the cut end of liner to eliminate burrs and reinstall insulator cap, gas diffuser, tip and nozzle.

When Using Jump Liner: Trim and deburr liner with 1/4" (6.4 mm) extending beyond the gun handle and reinstall neck.

Remove Existing Liner

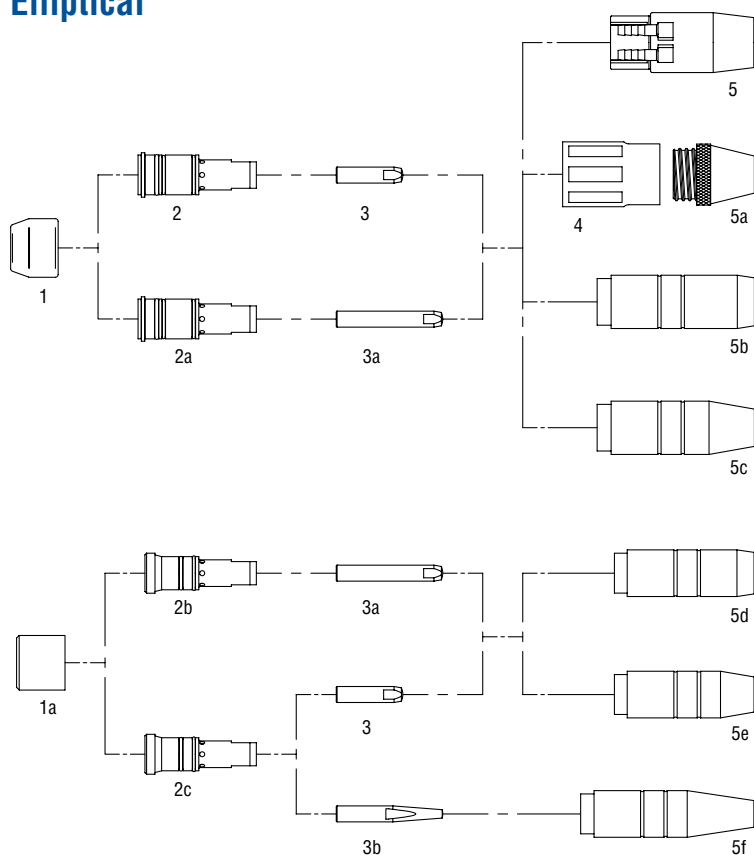
Turn off power. Remove nozzle, tip, gas diffuser and insulator cap (guns with jump liner remove neck). Lay cable straight. Grasp liner lock which protrudes from power pin (some direct plugs may require removal of additional components to access the liner lock) and remove from cable assembly.

Service

Inspect for excessive wear and debris on the inside diameter. Do not dip liner in solvents for cleaning. Liner may be periodically blown out with shop air. Replace with new liner when excessive wear or debris produces poor electrode feed.

Tips / Diffusers / Nozzles

Elliptical



Item	Part No.	Description	Size			
			Inches	mm		
1	4423R	Cap				
1a	4323R	Cap				
2	4435	Diffuser				
2a	4635	Diffuser				
	4635-116					
2b	4235	Diffuser				
	4235-116					
2c	4335	Diffuser				
	4335-116					
3	7497	Contact tip, 7400 series 	.023	0.6		
	7488		.030	0.8		
	7489		.035	0.9		
	7496		.039	1.0		
	7490		.045	1.2		
	7498		.052	1.4		
	7491		1/16	1.6		
	7492		5/64	2.0		
	7493		3/32	2.4		
	7494		7/64	2.8		
	7495		1/8	3.2		
	3a		1597	Contact tip, 1500 series 	.023	0.6
			1588		.030	0.8
1589		.035	0.9			
1596		.039	1.0			
1590		.045	1.2			
1598		.052	1.4			
1591		1/16	1.6			
1592		5/64	2.0			
1593		3/32	2.4			
1594		7/64	2.8			
3b	4285	Contact tip, 4200 series 	.030	0.8		
	4281		.035	0.9		
	4299		.039	1.0		
	4282		.045	1.2		
	4283		.052	1.4		
4	0036	Nozzle body				
5	1101QD	Nozzle; water cooled, copper	3/4	19.1		
5a	36-50	Nozzle cone	1/2	12.7		
	36-63		5/8	15.9		
	36-75		3/4	19.1		
5b	4491	Nozzle, brass	3/4	19.1		
	4591	Nozzle, copper				
	4591HD	Nozzle, heavy duty				
5c	4491	Nozzle, brass	9/16	14.3		
	4591	Nozzle, copper				
	4591HD	Nozzle, heavy duty				
5d	4391	Nozzle, brass	5/8	15.9		
	4393	Nozzle, copper				
5e	4392	Nozzle, brass	1/2	12.7		
	4394	Nozzle, copper				
5f	4295	Nozzle; tapered, brass	3/8	9.5		

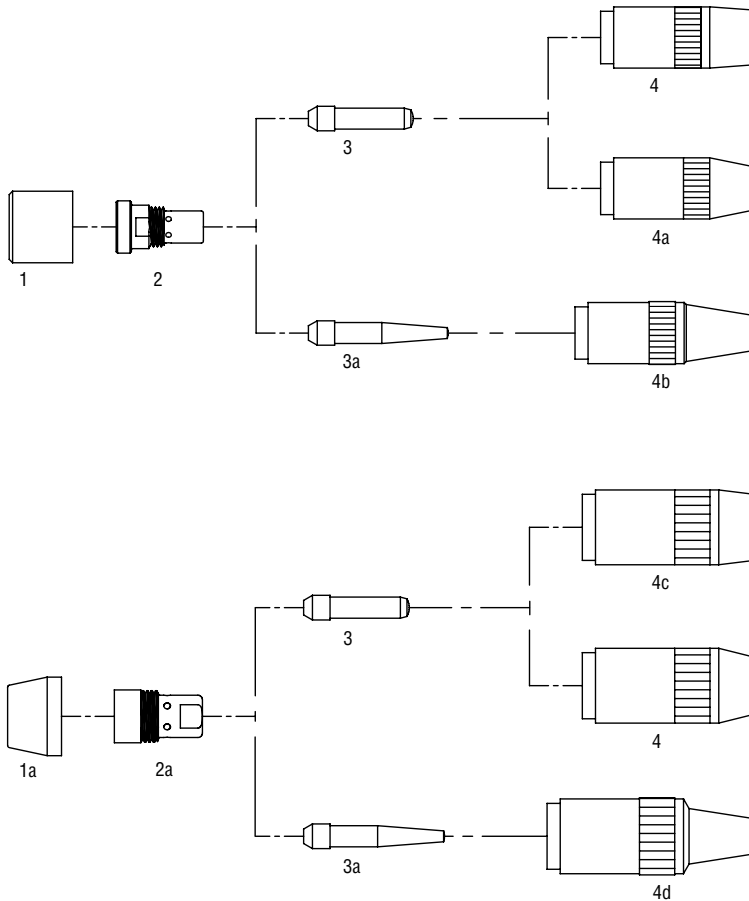
Centerfire™ Series

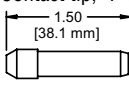
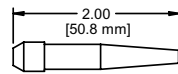
Centerfire™ Nozzle's Part Number

Use a Centerfire™ nozzle's part number to identify its specifications. The part number below represents a large Centerfire™ nozzle manufactured with 5/8" I.D., 1/8" tip recess and copper.

Nozzle Style	Orifice I.D.	Tip Recess	Material
N	58	18	C
	(i.e. 58 = 5/8")	(i.e. 18 = 1/8")	

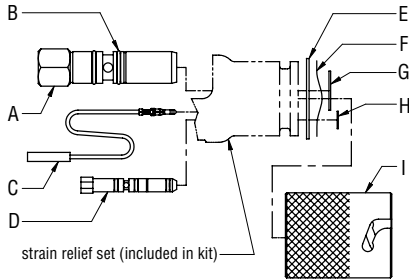
- Available nozzle styles:
N = nozzle large, **NT** = nozzle large tapered, **NS** = nozzle small, **NST** = nozzle small tapered
- Tip recess XT = 1/8" extension beyond end of nozzle
- Available nozzle materials:
B = brass and **C** = copper



Item	Part No.	Description	Size	
			Inches	mm
1	4323R	Cap		
1a	10012	Cap		
2	DS-1	Diffuser		
2a	D-1	Diffuser		
3	T-023	Contact tip, 'T' series 	.023	0.6
	T-030		.030	0.8
	T-035		.035	0.9
	T-039		.039	1.0
	T-045		.045	1.2
	T-052		.052	1.4
	T-062		1/16	1.6
	T-078		5/64	2.0
	T-094		3/32	2.4
	T-109		7/64	2.8
	T-125		1/8	3.2
	3a		TT-023	Contact tip, 'TT' series 
TT-030		.030	0.8	
TT-035		.035	0.9	
TT-039		.039	1.0	
TT-045		.045	1.2	
TT-052		.052	1.4	
TT-062		1/16	1.6	
4	NS-5800C	Nozzle, 5/8" I.D., flush, copper		
	NS-5818C	Nozzle, 5/8" I.D., 1/8" recess, copper		
	NS-5814C	Nozzle, 5/8" I.D., 1/4" recess, copper		
	NS-5800B	Nozzle, 5/8" I.D., flush, brass		
	NS-5818B	Nozzle, 5/8" I.D., 1/8" recess, brass		
	NS-5814B	Nozzle, 5/8" I.D., 1/4" recess, brass		
4a	NS-1218C	Nozzle, 1/2" I.D., 1/8" recess, copper		
	NS-1200B	Nozzle, 1/2" I.D., flush, brass		
	NS-1218B	Nozzle, 1/2" I.D., 1/8" recess, brass		
4b	NST-3800B	Nozzle, 3/8" I.D., flush, brass		
	NST-3818B	Nozzle, 3/8" I.D., 1/8" recess, brass		
	NST-38XTB	Nozzle, 3/8" I.D., 1/8" extension, brass		
4c	N-3400C	Nozzle, 3/4" I.D., flush, copper		
	N-3418C	Nozzle, 3/4" I.D., 1/8" recess, copper		
	N-3414C	Nozzle, 3/4" I.D., 1/4" recess, copper		
	N-3400B	Nozzle, 3/4" I.D., flush, brass		
	N-3418B	Nozzle, 3/4" I.D., 1/8" recess, brass		
	N-3414B	Nozzle, 3/4" I.D., 1/4" recess, brass		
4d	N-5800C	Nozzle, 5/8" I.D., flush, copper		
	N-5818C	Nozzle, 5/8" I.D., 1/8" recess, copper		
	N-5814C	Nozzle, 5/8" I.D., 1/4" recess, copper		
	N-5800B	Nozzle, 5/8" I.D., flush, brass		
	N-5818B	Nozzle, 5/8" I.D., 1/8" recess, brass		
4e	N-5814B	Nozzle, 5/8" I.D., 1/4" recess, brass		
	NT-3800C	Nozzle, 3/8" I.D., flush, copper		

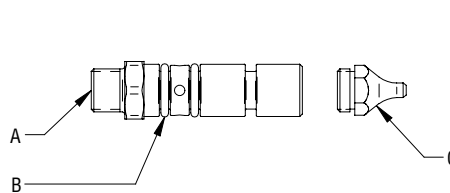
Available Direct Plug Kits & Replacement Parts

Bernard® Quick Disconnect Kit


Part No. 1199

Item	Part No.	Description
A	2200008	Power pin assembly
B	4929	O-Ring (2 required)
C	4924	Lead wire (2 required)
D	2060033	Gas pin assembly
E	4911	Snap ring, large
F	4916	Wave ring
G	4912	Snap ring, medium
H	2250016	Snap ring, small
I	4925	Locking sleeve

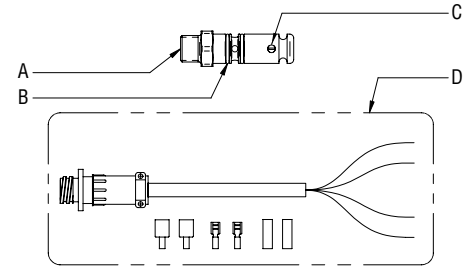
Miller® Direct Plug Kit


Part No. 1199M

Item	Part No.	Description
A	2200101	Power pin assembly
B	4478	O-Ring (2 required)
C	4477	Power pin tip (.023" - .045")
	4474	Power pin tip (3/32" - 1/8")
	4477-564	Power pin tip (.052" - 5/64")*
Power Pin Tips for Aluminum Wire		
C	2200105	Power pin tip (.030" - .035")*
	2200106	Power pin tip (.040" - 3/64")*
	2200107	Power pin tip (.052" - 1/16")*

*Optional

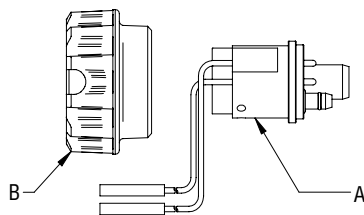
Tweco® 4/5 Direct Plug Kits


Part No. 1199T4- Tweco® 4 Direct Plug Kit
Part No. 1199T5- Tweco® 5 Direct Plug Kit

Item	Part No.	Description
A	2200103	Power pin assembly (Tweco® 4)
	2200104	Power pin assembly (Tweco® 5)
B	4713	O-Ring (2 required - Tweco® 4)
	4929	O-Ring (2 required - Tweco® 5)
C	4714	Set screw
D	SCT1N	Trigger cable adapter
	SCL1N	Trigger cable adapter, Lincoln*
	SCX1N	Trigger cable adapter, ESAB*

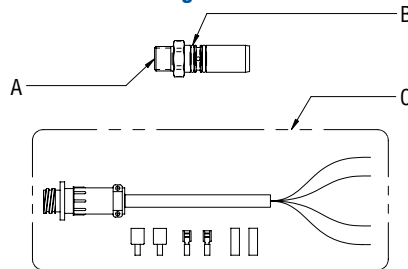
*Optional

Euro Direct Plug Kit


Part No. 1199E

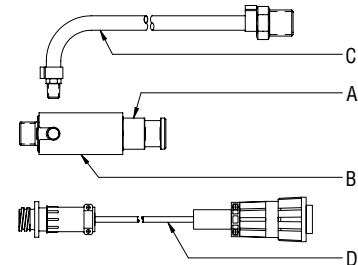
Item	Part No.	Description
A	5060	Euro block assembly
B	4816	Adaptor nut

Hobart® Direct Plug Kit


Part No. 1199H

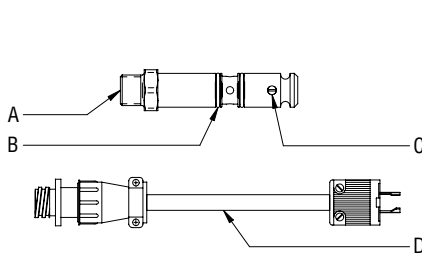
Item	Part No.	Description
A	2200098	Power pin assembly
B	4713	O-ring (2 required)
C	SCT1N	Trigger cable adapter

Lincoln® Direct Plug Kit


Part No. 1199L

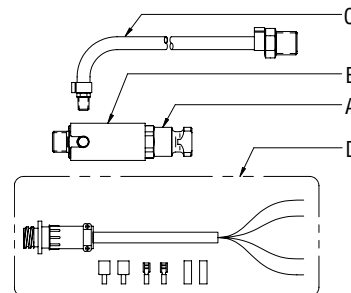
Item	Part No.	Description
A	2200099	Power pin
B	1840059	Insulator
C	GLM1	Gas line assembly
D	SCL1N	Trigger cable adapter

L-Tec Direct Plug Kit


Part No. 1199LT

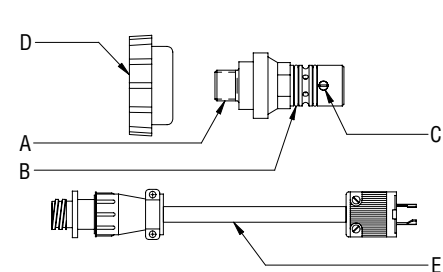
Item	Part No.	Description
A	2200100	Power pin assembly
B	4713	O-Ring (2 required)
C	4714	Set screw
D	SCX1N	Trigger cable adapter

National Direct Plug Kit


Part No. 1199N

Item	Part No.	Description
A	2200102	Power pin
B	1840059	Insulator
C	GLM1	Gas line assembly
D	SCT1N	Trigger cable adapter

OXO® Direct Plug Kit


Part No. 1199X

Item	Part No.	Description
A	2200108	Power pin assembly
B	4929	O-Ring (2 required)
C	4714	Set screw
D	6234	Adaptor nut
E	SCX1N	Trigger cable adapter

Manual Products

Cable Connectors

- Heavy-duty ball-point set screw cable connection.
- Fully insulated covers for maximum safety.
- Interchangeable with most popular models.
- Connector locking screw designed for longer life and superior electrical connection.



Part No.	Cable Sizes	Details
01BC	4,2,1 (35-50 mm ²)	1BC-F: female 1BC-M: male
2-1BC	4,2,1 (35-50 mm ²)	Mates w/ 2BC-F or 4BC-F
02BC	1/0, 2/0, 3/0 (50-70 mm ²)	2BC-F: female 2BC-M: male
04BC	3/0, 4/0 (70-95 mm ²)	4BC-F: female 4BC-M: male

Positive Lock Terminal Lugs

- Lug screw designed for enhanced field repairability.
- Composite copper alloys for superior conductivity.
- Increased cable depth for better connections.
- Fully insulated covers are heat, oil and abrasion resistant.



Part No.	Accepts Cable Connector(s)
B-1AF	1BC-M
B-2AF	2BC-M, 4BC-M, 2-1BC

Hammer-On Cable Lugs & Splicers

- Simple as driving a nail to attach.
- No soldering, no bolting, no set screws, no crimping tools required.
- Twice as heavy as most crimp-type connectors.
- Same conductivity as the cable they connect.



Lugs

Part No.	Cable Sizes	Size of Stud Hole	ID Cable Socket
0L11	3/0 and 4/0	21/32"	5/8"
0L22	1/0 and 2/0	17/32"	33/64"
0L33	2 and 1	33/64"	13/32"
0L44	6 thru 2	13/32"	19/64"

Splicers

Part No.	Cable Sizes	ID Cable Socket
0S11	3/0 and 4/0	5/8"
0S22	1/0 and 2/0	33/64"
0S33	2 and 1	13/32"

Solder Type Lugs

- Copper alloy for excellent electrical conductivity.
- Flared end for easy cable access.
- Stud hole size 17/32.



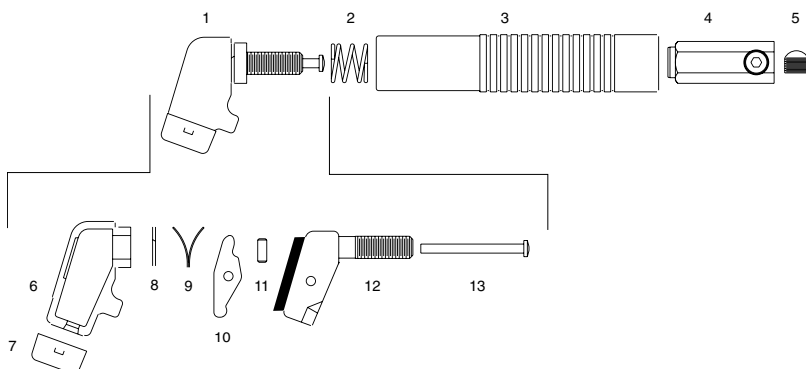
Part No.	Cable Sizes	Amperage Rating	Size of Stud Hole	ID Cable Socket
B-62	6-2	150	17/32"	.461"
B-120	1-2/0	225	17/32"	.559"
B-3040	3/0 and 4/0	250	17/32"	.660"

Shortstub®

- Electrode can be used to within one inch of the high heat, high impact head.
- Capable of utilizing more of the electrode than the typical tong-type holder.
- Greatly improves productivity – it is designed for quick, easy installation of electrodes.
- Built to last with a proven high impact, high heat replaceable head.
- Over 2,000 pounds of gripping pressure.
- Time-tested design.



Part No. 040B



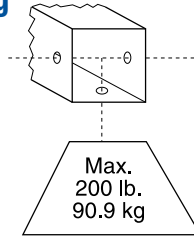
Specifications	Accessories for Part No. 040B
Capacity	400 AMPs/60% duty cycle
Electrode Size	1/16"-1/4" (1.6 - 6.4mm)
Weight	17 oz. (481 g)
Length	8-3/4" (22 cm)
Cable Connection	Model "B" large ball point screw connection
Cable Socket	19/32" (1.5 cm)

Replacement Parts

Item	Part No.	Description
1	0K40	Head Assembly
2	00S5	Coil Spring
3	0MH4	Handle (molded)
4	0B37	Connector Body
5	0B33	Ball Point Set Screw
6	00EL	Head Insulators (pair)
7	0BB4	Boot
8	0SR4	Snap Ring
9	00V4	V Jaw Spring
10	00J4	Jaw
11	0JP4	Jaw Pin
12	00H4	Head
12	0PP4	Pressure Pin

Bernard Boom and Cart Warning

1. Boom must not be loaded beyond 200 lbs (90.9 kg); this should be a balanced, hanging load.
2. When boom is mounted on cart, outrigger screws must be firmly tightened against floor, and adequate ballast must be provided.
3. When boom is mounted on cart, all weight must be removed from the boom before the cart can be moved.
4. Add proper ballast before extending boom. See diagram with "ballast requirements" to the far right.
5. Check boom daily for safe operation. Carefully test the installation by swinging the boom through its full rotation before placing unit into service.

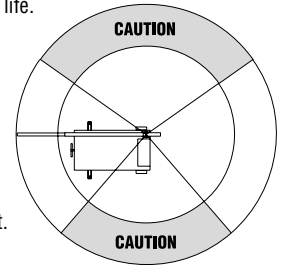


6. Any boom in a high use application (continually swung side to side, loaded near maximum weight at full extension) should have the mast periodically inspected and regreased. Greasing all other pivot points on the boom will give smoother operation and increased boom life.

Ballast Requirements

1. 360° with 1000 lbs. ballast when boom is fully retracted.
2. 2000 lbs. ballast required for full boom extension in shaded areas.

NOTE: Power sources, water in tank and other weighted objects can be considered ballast.



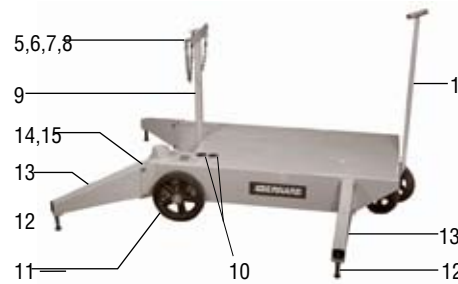
Carts

- Maximum capacity available from 2000 lbs. to 3000 lbs.
- Durable rubber tires and cast iron wheels.
- Swivel front steering.
- Bernard Carts make the work station accessible by organizing and storing power sources, feeders, gas cylinders and water coolers.
- Rack holds 2 cylinders.

2910 Cart

Wheels: front 10" (25.6 cm) rear 12" (30.7 cm)
Capacity: 3000 lbs (1360 kg)
Cart size: 57" x 30" x 8-3/4", (144.8 x 76.8 cm x 22.2 cm)
Weight: 333 lbs (151 kg)

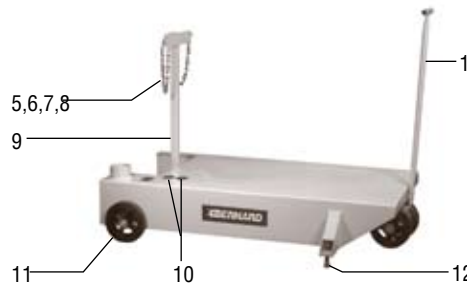
Part No. 2910



2710 Cart

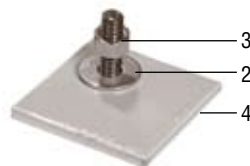
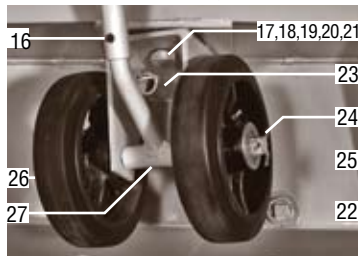
Wheels: 8" (20.5 cm) diameter
Capacity: 2000 lbs. (907 kg)
Cart size: 57" x 30" x 8-3/4"
 (146 x 76.8 cm x 22.4 cm)
Weight: 233 lbs (105.9 kg)

Part No. 2710



Item	Cart		Description	Qty.
	2910	2710		
1	0709	0709	Handle assembly	1
2	1056	1056	Washer	4
3	1055	1055	Mounting pad nut	4
4	1087	1087	Mounting pad	4
5	1041	1041	Chain	1
6	1456	1456	Nut (for chain)	2
7	1452	1452	Washer (for chain)	2
8	1103	1103	Bolt (for chain)	1
9	0708	0708	Cylinder support	1
10	2036	2036	Cap plug	2
11	0924	0710	Rear wheel	2
12	2902	2704	Leveling screw	2
13	0951		Gusset assembly	4
14	2420		Clevis pin	8
15	1040		Cotter pin	8
16	1045	1045	Handle pin	1
17	0947	0947	Nut (front wheel)	1
18	1034	1034	Washer	1
19	0921	0921	Bolt (front wheel)	1
20	1046	1046	Nylon washer	1
21	0916	0721	Swivel bushing	1
22	0719	0719	Drain plug	1
23	0723	0723	Spring	1
24	0932	0932	Cotter pin	4
25	0922	1034	Washer	4
26	0923	0710	Front wheel	2
27	0941	0714	Front wheel bracket	1

Front Wheel and Mounting Pad Breakdown



Mounting pad welds easily to cart, providing a secure anchor of power sources.

NOTE: Fill cart with water prior to welding pads to cart.

Booms

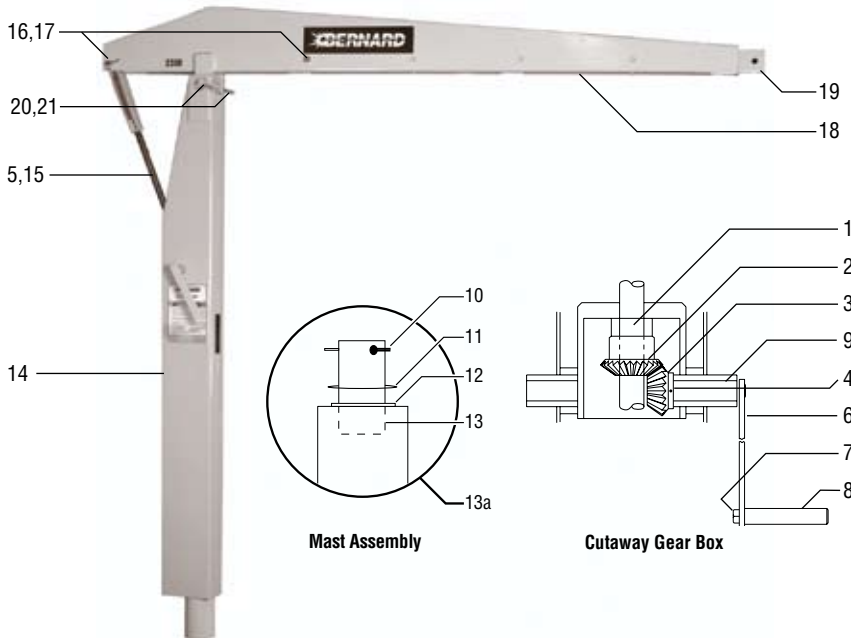
Booms

- Easy telescoping boom sections create greater horizontal reach.
- Single handle crank for superior elevation.
- Boom locking device for added safety, optional on 2300.
- Holds up to 200 pounds hanging load at maximum reach.
- 360° rotation with proper ballast.

2300 Boom

- Fits carts: 2710 and 2910.
- **Horizontal Reach:** 5' to 8' (1.5 to 2.5 m) **Elevation:** 3' to 14' (.9 to 4 m)
- **Capacity:** 200 lbs (90.9 kg) **Rotation:** 360°
- **Shipping Weight:** 110 lbs (50 kg)

Part No. 2300



2300 Boom

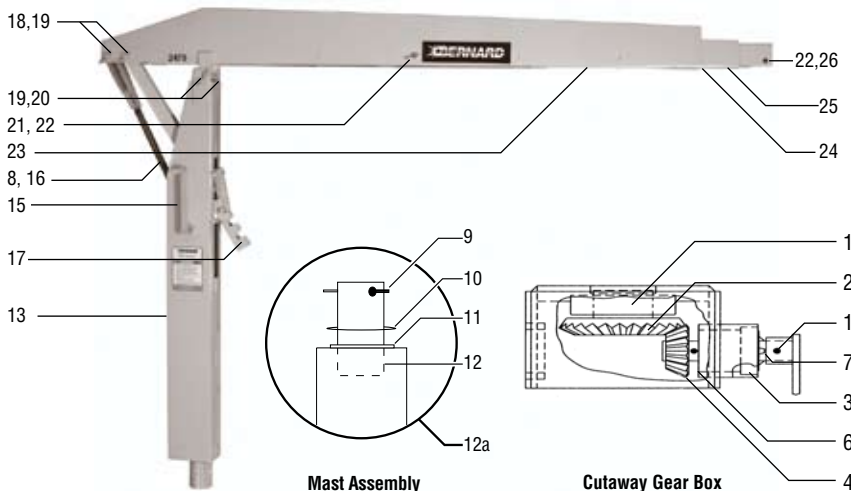
Item	Part No.	Description	Qty.
1	2329	Thrust bearing	1
2	2327	Gear	1
3	2328	Pinion	1
4	2334	Roll pin	1
5	2335	Rod stop pin	1
6	2346	Handle bar	1
7	2332	Handle bolt	1
8	2342	Handle	1
	2323	Handle assembly (includes 6,7,8)	
9	2479	Grease fitting	1
10	1040	Cotter pin	1
11	1034	Washer	1
12	1046	Nylon washer	1
13	2319	Mast	1
13a	2352	Mast assembly (includes 10,11,12,13)	
14	2349	Upright	1
15	2326	Lifting rod	1
16	2331	Hairpin clip	2
17	2344	Pin	2
18	2337	Main boom	1
19	2301	Boom extension	1
20	2320	Pivot pin	1
21	2424	Hair pin clip	2
	2696K	Boom locking device*	1

* Optional

2475 Boom

- Fits cart: 2910.
- **Horizontal Reach:** 6' to 14' (1.8 to 4.3m) **Elevation:** 3' to 17' (.9 to 5m)
- **Capacity:** 200 lbs (90.9 kg) **Rotation:** 360°
- **Shipping Weight:** 192 lbs (87 kg)

Part No. 2475



2475 Boom

Item	Part No.	Description	Qty
1	2436	Thrust bearing	1
2	2431	Gear	1
3	2435	Bearing	2
4	2432	Pinion gear	1
5	2427	Pinion arm	1
6	2334	Roll pin	1
7	3504	Retaining ring	1
8	2423	Rod stop pin	1
9	1040	Cotter pin	1
10	0922	Washer	1
11	1046	Nylon washer	1
12	2290	Mast	1
12a	2296	Mast assembly (includes 9,10,11,12)	
13	2460	Upright assembly	1
14	2437	Handle roll pin	1
15	2408	Handle assembly	1
16	2422	Lifting rod	1
17	2466	Boom locking device	1
18	2471	Pin	2
19	2424	Hairpin clip	6
20	2469	Pivot pin	1
21	2419	Clevis pin	1
22	2331	Hairpin clip	3
23	2367	Main boom section	1
24	2369	Center boom section	1
25	2372	Front boom section	1
26	2420	Clevis pin	2

BOOM Mounting System

- Boom mounts are the right choice when space is limited on the shop floor or when a fixed installation is desired.
- Both models provide excellent stability and fit all Bernard booms.

Floor Mount

- Floor mount bolts to the platform of a truck or shop floor.
 - **Capacity:** 200 lbs. (90.9 kg)
 - **Size (H x L x W):** 14" x 14" x 14"
(35.56 cm x 35.56 cm x 35.56 cm)
 - **Mounting Holes:** 13/16" (2.06 cm)
 - **Weight:** 37 lbs (16.7 kg)
- Part No. 2380**



Wall Mount

- Wall Mount bolts to a vertical steel column or masonry wall.
 - **Capacity:** 200 lbs (90.9 kg)
 - **Size (H x L x W):** 16" x 16" x 7"
(40.64 cm x 40.64 cm x 17.78 cm)
 - **Mounting Holes:** 13/16" (2.06 cm)
 - **Weight:** 42 lbs. (19 kg)
- Part No. 2390**



Aquasol CORPORATION

EZ Tape™

EZ Tape™ is traditional aluminum welding tape that can be used to seal root gaps while purging, however, we recommend EZ Zone™ Tape be used for this purpose to achieve the purest weld. EZ Tape™ has many other conventional uses in the field such as sealing pipe ends for transporting, sealing ducts for heating, air conditioning and refrigeration, and acting as a vapor barrier.



Part No.	Size
EZ Tape™	
EZ-T2.0	2" x 75'
EZ Zone™ Tape	
EZ-ZT2.5	2.5" x 75'
EZ-ZT4.0	4" x 75'

EZ Wipes™ Canister

EZ Wipes™ allow a welder to quickly and effectively clean pipes prior to welding, reducing the risk of weld contamination and increasing the number of pure finished welds. EZ Wipes™ feature a specialized two-sided cleaning fabric, an abrasive side to loosen dried on surface contaminants and a smooth side to reveal a cleaner, polished surface.



Part No.	Description
EZW-30	30 per canister
EZW-70	70 per canister

EZ Purge™ Paper

Aquasol® water-soluble paper and tape is a cost saving alternative to conventional purging systems. This paper is used to dam argon or helium gases during tungsten inert gas (TIG) welding of steel or aluminum pipes. Aquasol® water-soluble paper dissolves instantaneously. Use water soluble tape for fast adhesion of paper to pipe.

- ASW-35 (.0035" thick) is for use on pipes 4"ID or less.
- ASW-60 (.0060" thick) is for use on pipes 4"ID or greater.



Part No.	Size
35S-11	8.5" x 11" 500/CA
35S-14	8.5" x 14" 500/CA
60S-22	15" x 22" 250/CA
35S-22	17" x 22" 500/CA
35R-9	9" x 165'
35R-15	15" x 165'
60R-15	15.5" x 165'
60R-31	31" x 165'
Water Soluble Tape	
WT-1	1" x 300'
WT-2	2" x 300'