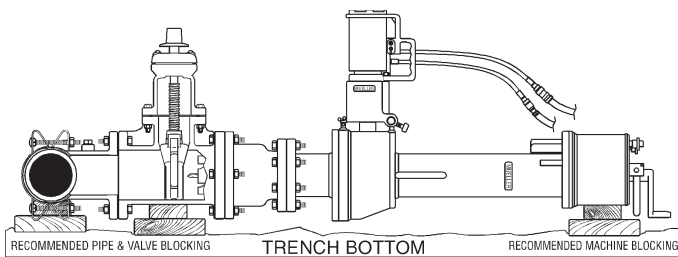


**The Mueller method for making a lateral connection (Mueller® CL-12™ Drilling Machine shown)**

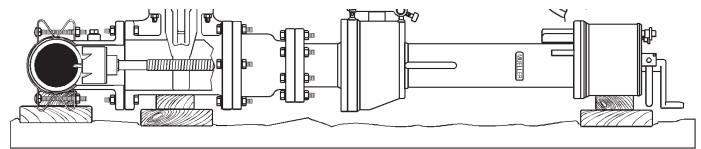
Large Drilling Machines are used for making 2" to 24" lateral connections on water mains under pressure. These machines are available with the tools and accessories for cutting a wide variety of pipe.

These large drilling machines are built to take the hard use and rough handling that is unavoidable when working on mains. They need only minimum maintenance to provide long life and satisfactory use. The various drilling machines are simple to operate and, because they are similar in design and operation, training operators to use them is an easy task.

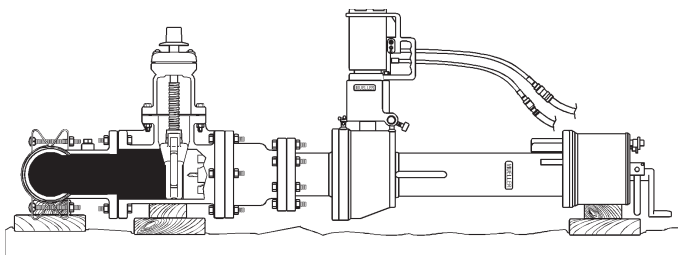
These machines are part of a complete selection of equipment, products and methods developed by Mueller Co. to perform the variety of operations needed to install, extend and maintain today's water systems. The designed-in compatibility of each part of the Mueller selection helps everything go together easily for strong, leak-tight installations. Mueller methods and equipment let you work on pressurized water mains without interrupting flow.



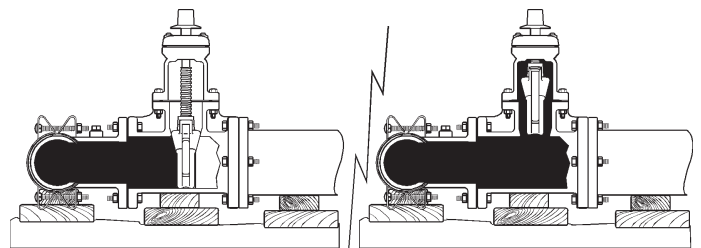
**1.** The tapping sleeve and valve are first attached to the main and tested. Then the drilling machine, with a shell cutter attached to the boring bar, is attached to the tapping valve using an adapter. The assembly should be pressure tested prior to making the cut.



**2.** With the tapping valve open, the shell cutter and boring bar are advanced to cut the main.



**3.** The boring bar is retracted and the tapping valve closed to contain the water pressure.

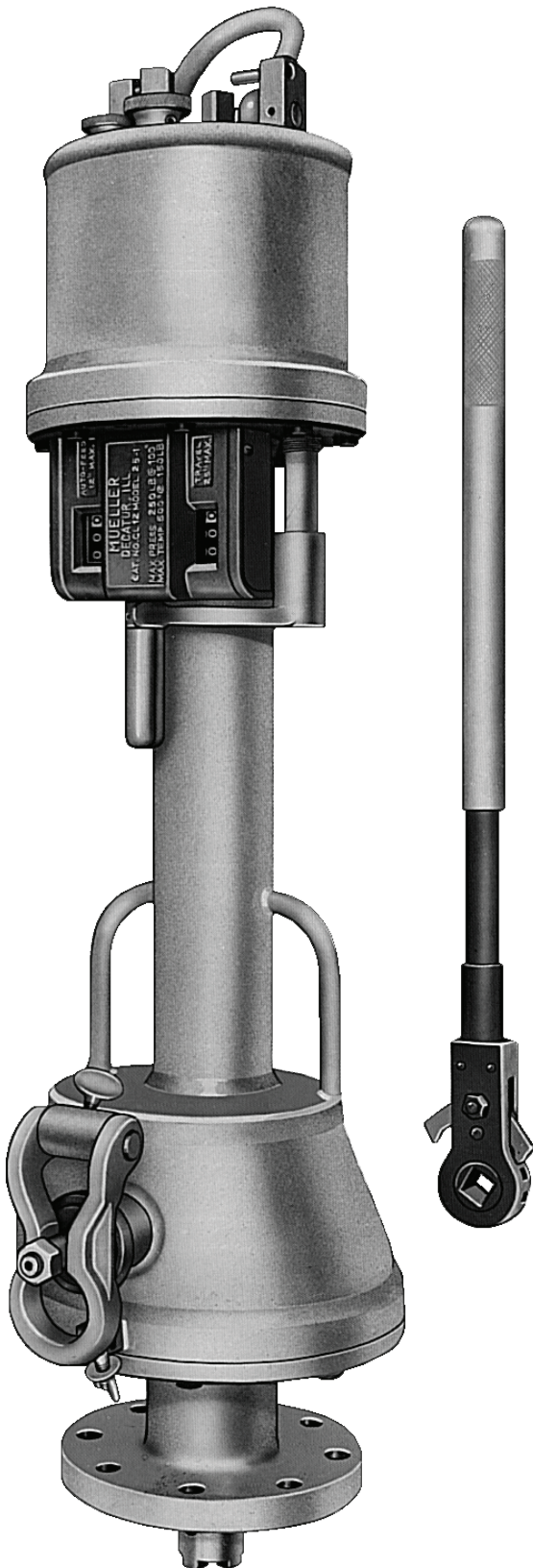


**4.** With the machine removed, the lateral is connected and the tapping valve opened to pressurize the lateral and place it in service.

**Large drilling machine selection guide**

Machine	Tapping valve size range	Maximum pressure	Operation	Recommended uses
CL-12™	2"-12"	250 psig (1724 kPa)	Hand or Power	For making lateral connections or inserting valves under pressure
C-1-36-99002	2"-24"	500 psig (3447 kPa)	Hand or Power	
Mega-Lite™	3"-12"	250 psig (1724 kPa)	Hand or Power	

Rev. 1-09 Shaded area indicates changes



### Mueller CL-12™ Machine features

- **Automatic Feed Travel Indicator** - as the cut progresses, the direct reading indicator automatically subtracts, always showing the amount of travel remaining in automatic feed. You always know just how much of the cut remains to be made.
- **Rapid Hand Travel** - when not cutting, the boring bar can be quickly and easily advanced or retracted by hand. Rapid advancement and retraction of the boring bar reduces time of operation.
- **Automatic Tool Position Indicator** - direct reading indicator continually shows the position of the pilot drill and shell cutter in relation to their fully retracted or rearmost position. Large numerals read in inches and tenths of an inch and automatically add as the tool is advanced, and subtract as the tool is retracted. Eliminates tool position guesswork.
- **Automatic Feed Setting** - the amount of travel required in automatic feed can be quickly and accurately set in inches and tenths of an inch. This amount is clearly shown on the automatic feed travel indicator to assure accurate settings every time.
- **Automatic Feed Disengagement**- when the preset travel in automatic feed is completed and the indicator reads zero, the tool feed is automatically disengaged.
- **Ratchet Handle** - all working parts are totally enclosed; easily lubricated.
- **Rugged All Steel Construction** - all working parts are totally enclosed in a strong steel case to permit complete lubrication and prevent damage from dirt and other foreign matter.
- **Handling Ease** - telescopic design reduces overall length and weight. Conveniently placed handles and front and rear lifting yokes aid in handling the machine. The front lifting yoke may also be used to lock the boring bar while attaching or removing tools.
- **Hand or Power Operation** - may be hand operated with ratchet handle provided or power operated with MUELLER H-614 air power operator or H-607 hydraulic operator.
- **Self-Adjusting Boring Bar Packing** - high temperature chevron packing is spring-loaded to ensure positive, leakproof sealing without packing adjustments. Line pressure does not enter case.

**Mueller CL-12 Drilling Machine – for drilling operations under pressure – 2" to 12" inclusive**

- Catalog number CL-12 (part # 39295)
- Hand or power operation
- Designed for use on pressurized or dry mains
- Used to cut 1-3/4" to 11-1/2" holes
- Will make cuts through tapping valves from 2" to 12"
- 25" (635 mm) boring bar travel
- Use on cast iron or ductile iron pipe • cement lined cast iron or ductile iron pipe  
• A-C pipe • concrete pipe • steel pipe • cast iron O.D. PVC
- 250 psig (1725 kPa/17 barg) maximum working pressure at 100 F (38 C)
- 500 F (260 C) maximum working temperature at 150 psig (1025 kPa/10 barg)

*NOTE: The working pressure or temperature rating is reduced accordingly if any attachment, valve or fitting subjected to pressure or temperature during the drilling operation has a maximum working pressure or temperature rating less than that specified above.*



**Equipment furnished with each Mueller CL-12 Drilling**

- Wooden storage chest (not shown)
- Ratchet handle
- Screw driver
- Double open end wrenches
- Allen wrenches
- Machine to adapter bolts and nuts
- Machine to adapter D-type washers
- Machine to adapter gasket
- Cutting grease #88366
- Instruction manual (Form # 8895)

**Equipment to be selected**

- Shell cutters, drills, pilot drills, arbors, and hubs – page 3.4
- Machine adapters – page 3.5
- Power operators – page 3.23

	<b>CL-12</b>
Total shipping weight	400 lbs. (180 kg)
Machine only weight	270 lbs. (120 kg)
Machine length	49"

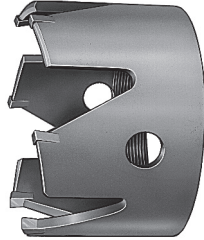
Rev. 4-17 Shaded area indicates changes

### Mueller CL-12 Drilling Machine tools

The CL-12 Drilling Machine equipment shown below is used to make lateral connections to mains by drilling through tapping sleeves and valves, gate valves, or standard fittings.



Pilot drill



Shell cutter



Cutter Hub



Drill

### Shell cutters and drills

Material of pipe to be cut	Equipment	Size of valve or fitting								
		2"		2-1/4"	3"	4"	6"	8"	10"	12"
Size of shell cutter or drill OD		1-3/4"	2"	2"	2-1/2"	3-1/2"	5-1/2"	7-1/2"	9-1/2"	11-1/2"
All cast iron All ductile iron pipe All A-C, concrete, and steel pipe	Equipment Kit: <sup>⊖</sup>	-	-	-	682318	682319	682320	682321	682322	682323 **
	Shell cutter*†	-	-	-	83617	83203	83134	83135	83140	83141
	Cutter hub	-	-	-	83599	83671	83673	83676	83679	83682
	Pilot drill*	-	-	-	83954	83954	83955	83956	83957	83958
	Pilot drill**	-	-	-	83634	83634	83639	683025	83678	683026
	Drill	33539	33541	33541	-	-	-	-	-	-
	Boring bar adapter	83666	83666	83666	-	-	-	-	-	-
Shell cutter OD††		-	-	-	-	3.3"	5.0"	6.6"	8.3"	10.0"
PVC/PEP	Shell cutter	-	-	-	-	537061	537062	682581	682583	682585
	Pilot Drill (Shell Cutter)	-	-	-	-	681919	681919	681919	681919	681919
	Pilot Drill Extension	-	-	-	-	537068	537069	537069	537070	537070
	Cutter Hub	-	-	-	-	83671	83671	83671	83671	83671

\* These shell cutters and pilot drills are tungsten carbide tipped.

\*\* These pilot drills can be used on cast or ductile iron pipe, cement-lined cast or ductile iron pipe, and steel pipe.

† The outside diameter of these shell cutters is 1/2" less than the nominal size of the valve or fitting.

†† Shell cutters for use on plastic pipe only.

⊖ Equipment kit includes shell cutter, pilot drill, cutter top, and MJ adapter

Note: Mueller recommended cutting grease is available in pints (88366).

## Mueller CL-12 Drilling

Adapters are required to permit the CL-12 drilling machine to be attached to tapping valves, gate valves and standard flanged fittings.



Hub end adapter gasket



Hub end adapter



Mechanical joint adapter O-ring gasket



Mechanical joint adapter



Flanged



AquaGrip adapter

## Mueller CL-12 Drilling Machine Adapters

Tapping Valve Information		Maximum Working Pressure*	Adapter Part	Size of valve or fitting								
Valve end connection	Valve catalog no.			2"	2-1/4"	3"	4"	6"	8"	10"	12"	
Mechanical Joint	T-2361 Series	250 psig @100F	<b>Adapter complete**</b>	<b>83668</b>	<b>83669</b>	<b>83367</b>	<b>83368</b>	<b>83369</b>	<b>83370</b>	<b>83371</b>	<b>83372</b>	
			Adapter only	47981	47982	46269	46268	46267	46266	46265	46264	
			O-ring adapter gasket	307923	307924	307925	307926	307927	307928	307929	307930	
			Adapter bolts and nuts**	Part no.	36445	36445	Bolts and nuts are furnished with each mechanical joint tapping valve in these sizes					
Quantity	2	2										
Mechanical Joint Mfg. Aluminum	T-2361 Series	250 psig @100F	<b>Adapter complete**</b>	-	-	-	<b>682589</b>	<b>682590</b>	<b>682591</b>	<b>682592</b>	<b>682593</b>	
			Adapter only	-	-	-	537038	537040	537041	537050	537051	
AquaGrip Aluminum	T-2361 Series	250 psig @100F	<b>Adapter complete</b>	-	-	-	<b>682352</b>	<b>682353</b>	<b>682354</b>	<b>682383</b>	<b>682384</b>	
			Adapter only	-	-	-	528224	528225	528226	528320	528313	
			Adapter bolts	Part no.	-	-	-	194541	194541	194541	194541	194541
				Quantity	-	-	-	4	4	6	8	8
			Adapter nuts	Part no.	-	-	-	195237	195237	195237	195237	195237
				Quantity	-	-	-	4	4	6	8	8
			Washers	Part no.	-	-	-	092576	092576	092576	092576	092576
				Quantity	-	-	-	4	4	6	8	8
Plug	Part no.	-	-	-	36950	36950	36950	36950	36950			
	Quantity	-	-	-	4	4	4	6	8			
A-C or hub	T-2361 Series	250 psig @ 100F	<b>Adapter complete</b>	<b>83770</b>	-	<b>83361</b>	<b>83362</b>	<b>83363</b>	<b>83364</b>	<b>89480</b>	<b>89481</b>	
			Adapter only	47980	-	54560	54527	54515	54537	504109	504110	
			Adapter gasket	59771	-	59772	59773	59774	59775	504454	504455	
			Adapter bolts and nuts	Part no.	54806	-	56682	56682	54162	54162	94407	94407
				Qty.	6	-	6	6	6	6	8	10
			Washer	Part no.	54597	-	58321	58321	92576	92576	98919	98919
Qty.	12	-		12	12	12	12	16	20			
Flange	ANSI 125/150	250 psig @ 100F	-	-	-	683133	683065	683066	683067	683068	683132	
Flange	PN10	250 psig @ 100F	-	-	-	683134	683073	683074	683075	683077	683079	
Flange	PN16	250 psig @ 100F	-	-	-	683134	683073	683074	683076	683078	683080	

\* This is the maximum working pressure of the adapter at 100F (38C). This working pressure must be reduced accordingly if any attachment, valve, fitting or machine subjected to pressure during the use of this adapter, has a maximum working pressure less than that specified above.

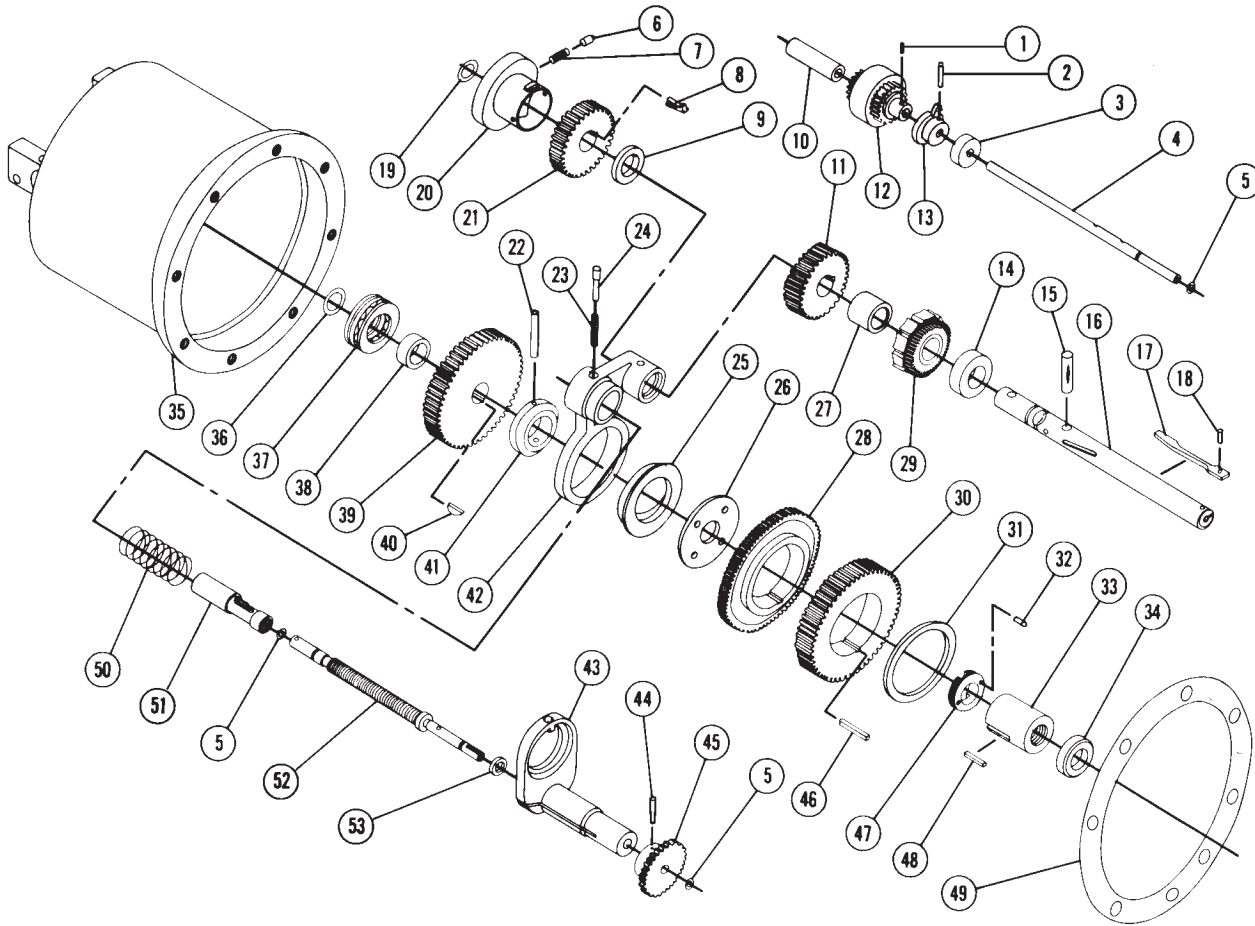
\*\* Two of the four bolts and nuts needed to attach the adapter to the tapping valve are supplied with the adapter when ordered complete, or can be ordered separately.

NOTE: These Adapters use the intermediate ring and o-ring from the valve to create a seal between the adapter and the valve end. The AquaGrip adapter comes tapped with a 2" IP thread and plug so a chip flushing valve can be utilized during the cut (valve not provided.) Aluminum Construction.



# 3.6

Rev. 4-01 Shaded area indicates changes

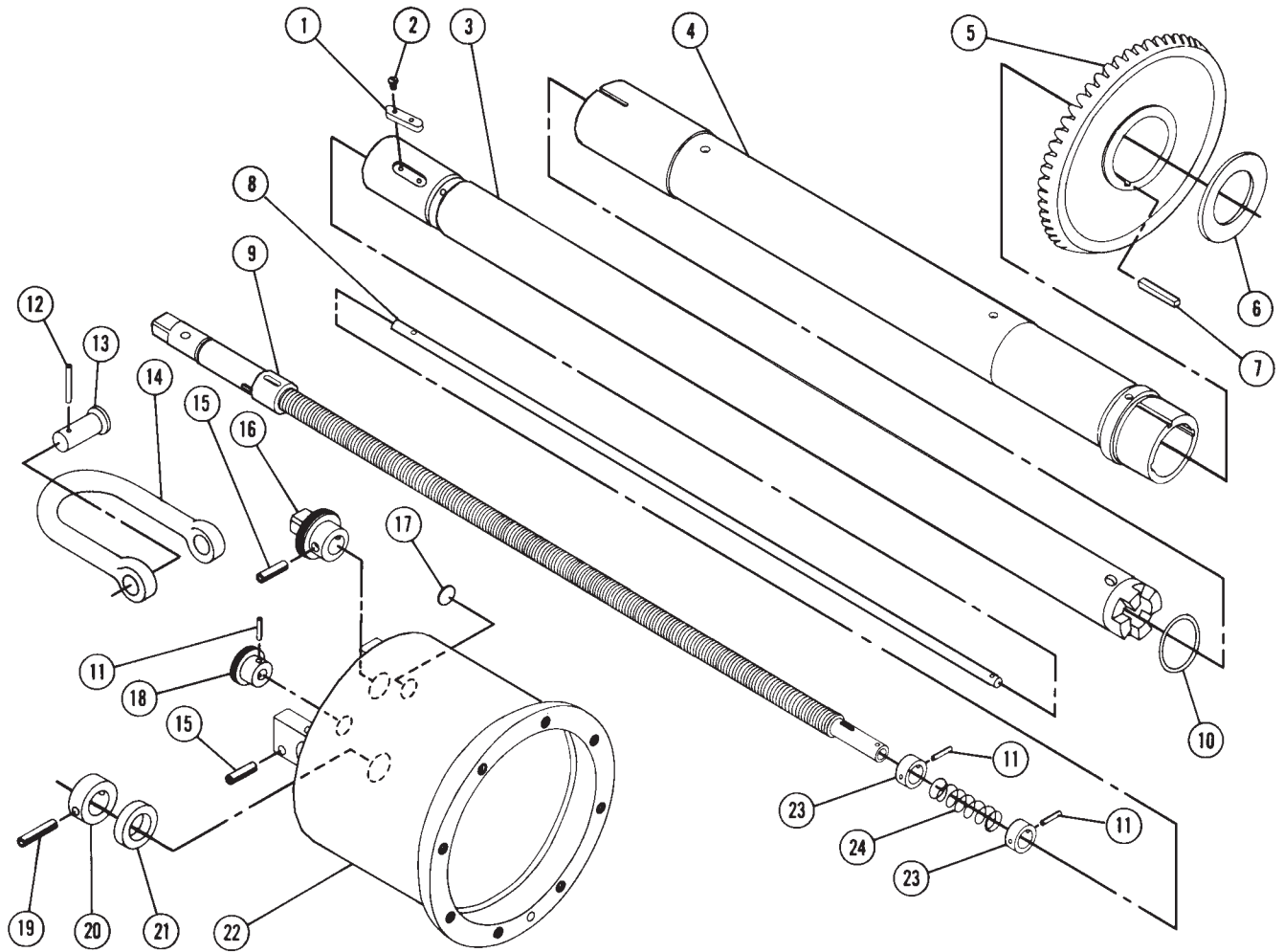


NOTE: These illustrations are for parts identification only. DO NOT use these illustrations for assembly or disassembly of machine. Mueller Co. offers a machine repair service. Contact Mueller® Customer Service Center for details.

Item No.	Part Number	Part Name	Item No.	Part Number	Part Name	Item No.	Part Number	Part Name
1	60350	Pin	19	79344	O-ring	37	40854	Thrust bearing
2	53747	Pin	20	83587	Auto-feed cam	38	48125	Bushing
3	48154	Spacer	21	48117	Feed screw pinion	39	48169	Feed screw gear
4	48062	Travel indicator shaft	22	48094	Pin	40	300190	Key
5	43973	O-ring	23	48157	Spring	41	48093	Collar
6	500853	Detent	24	48158	Plunger	42	48156	Overtravel link
7	500872	Deten spring	25	48095	Bushing	43	83579	Auto-feed tube
8	48170	Key	26	48096	Drive tube thrust washer	44	48123	Pin
9	48159	Collar	27	48105	Collar	45	48122	Gear
10	48124	Sleeve	28	48089	Drive tube indicator gear	46	48087	Key
11	48104	Drive tube pinion	29	83595	Idler shaft indicator gear	47	48097	Nut
12	83582	Travel indicator gear unit	30	48088	Drive tube gear	48	54445	Key
13	48153	Single tooth gear	31	48086	Drive tube gear thrust washer	49	48127	Gasket
14	48168	Spacer	32	301567	Set screw	50	35994	Spring
15	48160	Pin	33	48098	Feed nut	51	48120	Auto-feed nut
16	48103	Idler shaft	34	48099	Collar	52	48119	Auto-feed indicator shaft
17	54469	Dive key	35	83581	Rear cover	53	48121	Thrust Washer
18	63477	Dive key pin	36	41301	Feed screw seal	-	-	-

**TO ORDER SPECIFY QUANTITY, PART NUMBER AND PART NAME (include catalog number and model number of machine).**

Shaded area indicates change Rev. 4-01

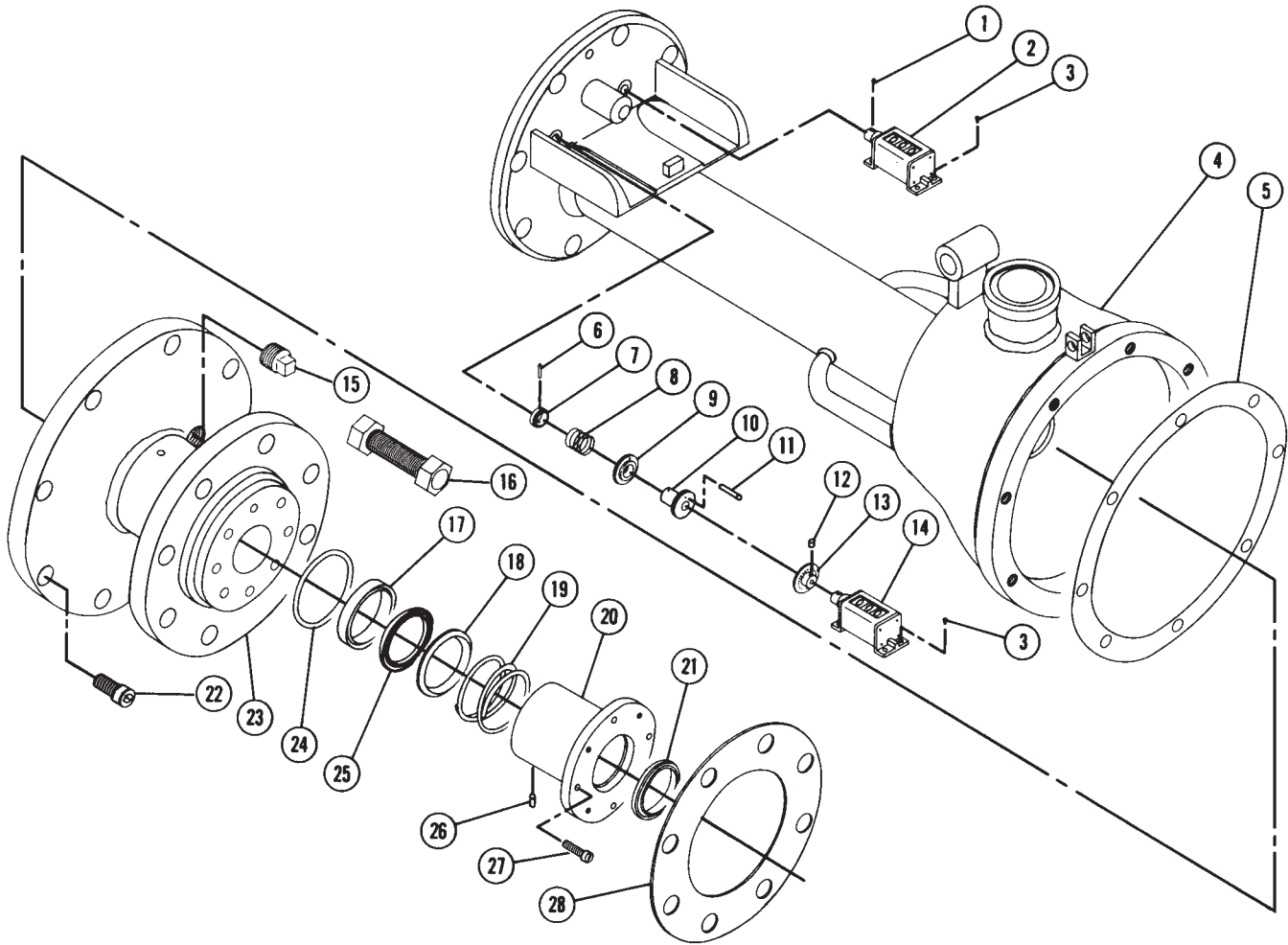


NOTE: These illustrations are for parts identification only. DO NOT use these illustrations for assembly or disassembly of machine. Mueller Co. offers a machine repair service. Contact Mueller® Customer Service Center for details.

Item No.	Part Number	Part Name	Item No.	Part Number	Part Name	Item No.	Part Number	Part Name
1	54482	Key	9	507572	Feed screw	17	48129	Freeze plug
2	52181	Screw	10	78828	Boring bar seal	18	48136	Auto-feed knob
3	83589	Boring bar	11	53747	Pin	19	48134	Pin
4	48185	Drive tube	12	48130	Pin	20	48133	Collar
5	500636	Bevel gear	13	48165	Shaft	21	48132	Spacer
6	48178	Thrust washer	14	500889	Rear lift yoke	22	83581	Rear cover
7	48192	Key	15	48131	Pin	23	48100	Collar
8	48092	Overtravel rod	16	48135	Idler shaft knob	24	48101	Spring

# 3.8

Rev. 1-09 Shaded area indicates changes

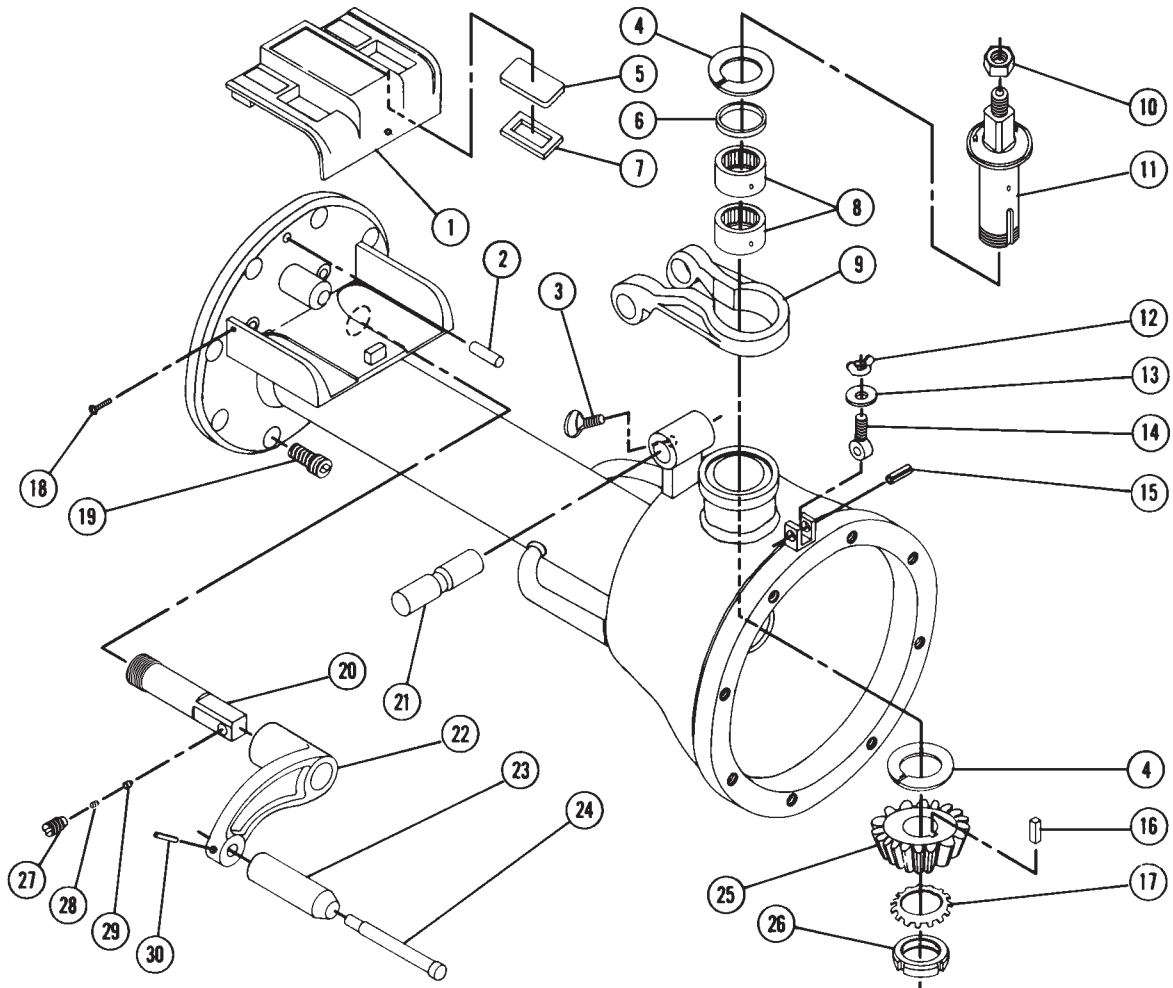


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Item No.	Part Number	Part Name	Item No.	Part Number	Part Name	Item No.	Part Number	Part Name
1	48061	Pin	12	301780	Set Screw	23	83592	Front Flange
2	48139	Travel indicator	13	500778	Sleeve	24	48296	O-ring*†
3	37804	Screw	14	48140	Auto-feed indicator	25	45121	Packing ring*†
4	83591	Body	15	64134	Plug	26	47092	Pin
5	48091	Gasket	16	56682	Bolt and nut	27	92754	Gland cap screw
6	48081	Pin	17	44978	Concave follower*	28	55449	Gasket
7	500775	Fixed collar	18	44320	Convex follower*	29	79270	O-ring*†
8	500774	Spring	19	98001	Spring*		580473	Metallic and Soft Repair Kit includes*
9	500776	Moveable collar	20	48138	Packing gland*		682612	Soft Repair Kit includes†
10	500777	Sleeve	21	48137	Wiper ring*†		-	-
11	500779	Pin*	22	98570	Cap Screw		-	-

**TO ORDER SPECIFY QUANTITY, PART NUMBER AND PART NAME (include catalog number and model number of machine).**



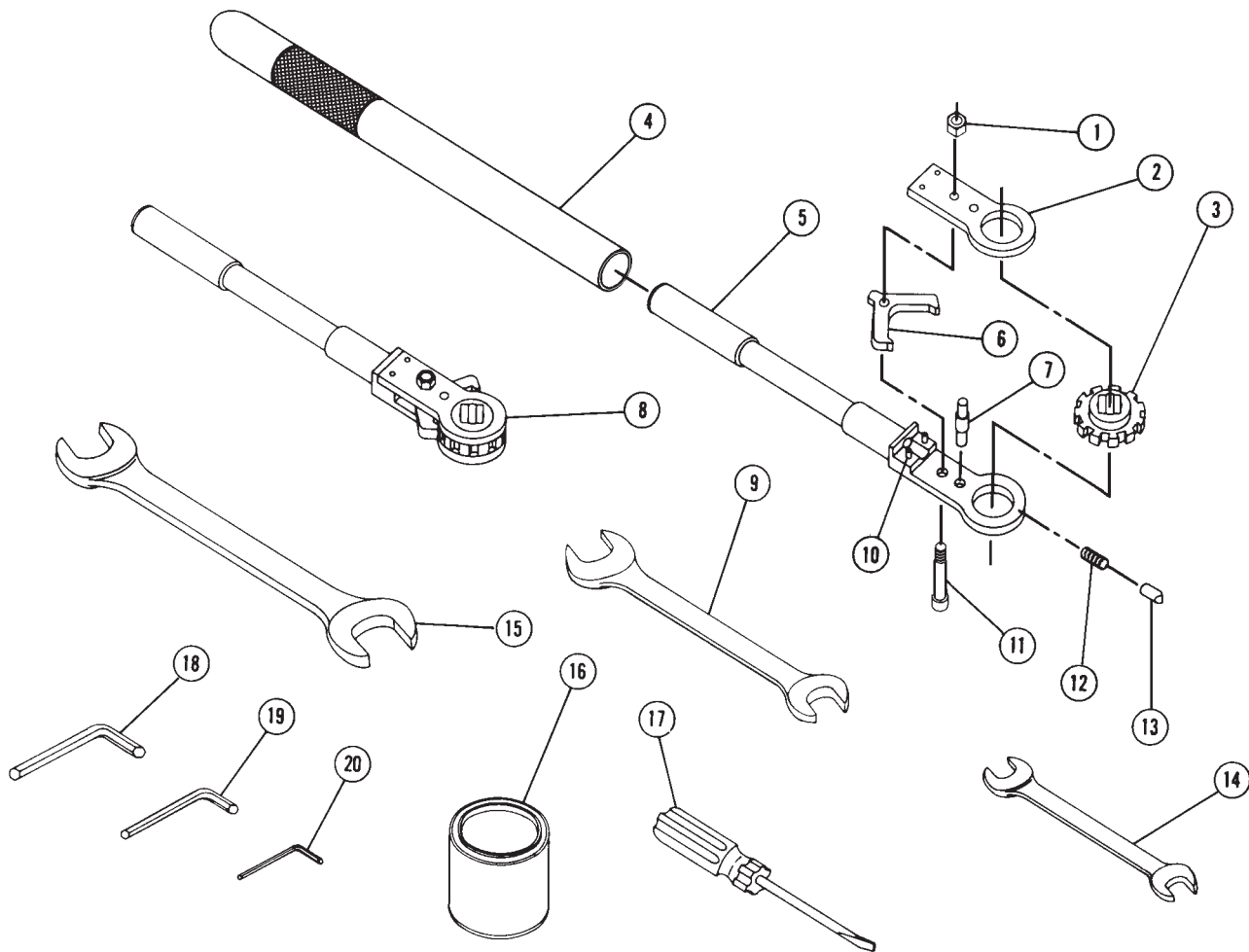


NOTE: These illustrations are for parts identification only. DO NOT use these illustrations for assembly or disassembly of machine. Mueller Co. offers a machine repair service. Contact Mueller® Customer Service Center for details.

Item No.	Part Number	Part Name	Item No.	Part Number	Part Name	Item No.	Part Number	Part Name
1	48102	Cover	12	94341	Wing nut	23	48163	Handle
2	54545	Dowel pin	13	54012	Washer	24	54477	Stud
3	91665	Thumb screw	14	52389	Eyebolt	25	500637	Bevel pinion
4	48187	Thrust washer	15	500635	Rollpin	26	48190	Lock nut
5	48141	Shield	16	48189	Key	27	501498	Retainer
6	500632	Seal	17	48191	Lock washer	28	59810	Detent spring
7	48142	Gasket	18	48143	Cover screw	29	501497	Detent
8	500633	Bearing	19	98570	Cap screw	30	53747	Pin
9	48205	Front lift yoke	20	48145	Plug	-	-	-
10	46029	Nut	21	48144	Pivot	-	-	-
11	48188	Bevel pinion shaft	22	48164	Crank	-	-	-

# 3.10

Rev. 4-01 Shaded area indicates changes



NOTE: These illustrations are for parts identification only. DO NOT use these illustrations for assembly or disassembly of machine. Mueller Co. offers a machine repair service. Contact Mueller® Customer Service Center for details.

Item No.	Part Number	Part Name	Item No.	Part Number	Part Name	Item No.	Part Number	Part Name
1	46255	Nut*	8	85308	Ratchet complete	15	48309	Wrench
2	40136	Ratchet handle plate	9	58196	Wrench	16	88366	Cutting grease
3	40137	Ratchet wheel	10	40140	Dowel pin	17	90409	Screw driver
4	863391	Handle extension	11	40138	Bolt*	18	99803	Allen wrench
5	40177	Handle bar	12	40007	Spring	19	90325	Allen wrench
6	40004	Ratchet dog	13	40006	Spring pin	20	90322	Allen wrench
7	40139	Stud	14	96536	Wrench	-	-	-

\*Order both parts when replacing either one.

**TO ORDER SPECIFY QUANTITY, PART NUMBER AND PART NAME (include catalog number and model number of machine).**

**Mueller® C1-36-99002 Drilling Machine - for drilling operations under pressure - 1-1/2" to 18-1/2" inclusive**

- Catalog number C1-36-99002 (part number 39262)
- Hand or power operation
- Designed for use on pressurized or dry mains
- Used to cut 1-1/2" to 18-1/2" holes
- 36" (914 mm) boring bar travel
- Use on cast iron or ductile iron pipe • cement lined cast iron or ductile iron pipe • A-C pipe • concrete pipe • steel pipe
- Will make cuts through tapping valves from 2" to 24"
- Feed over-travel feature prevents damage to equipment
- 500 psig (3450 kPa/35 barg) maximum working pressure at 100 F (38 C)
- 500 F (260 C) maximum working temperature at 250 psig (1725 kPa/17 barg)

*NOTE: The working pressure or temperature rating is reduced accordingly if any attachment, valve, or fitting subjected to pressure or temperature during the drilling operation has a maximum working pressure or temperature rating less than that specified above.*



**Equipment furnished with each Mueller C1-36-99002 Drilling Machine**

- Wooden storage chest (not shown)
- Ratchet handle
- T-handle Socket wrench
- Three double open end wrenches
- Eight machine to adapter bolts and nuts
- Eight D-type machine to adapter washers
- Machine to adapter gasket
- Cutting grease
- Instruction manual (Form #8513)

**Equipment to be selected**

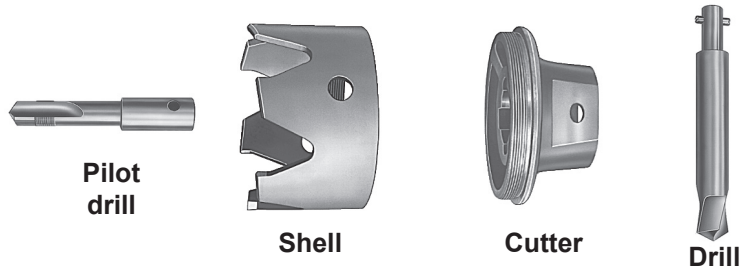
- Shell cutters, drills, pilot drills, cutter arbors, and cutter hubs—page 3.12
- Machine adapters—page 3.13
- Power operators—page 3.23

	<b>C1-36-99002</b>
Total shipping weight	424 lbs. (191 kg)
Machine only weight	270 lbs. (120 kg)
Machine length	51-1/2"

Rev. 1-19 Shaded area indicates changes

### Mueller C1-36-99002 Drilling Machine tools

The Mueller C1-36-99002 Drilling Machine equipment shown below is used to make lateral connections to mains by cutting through tapping sleeves and valves, gate valves and standard fittings.



### Shell cutters and drills to install tapping sleeves and valves

Material of pipe to be cut	Equipment	Size of valve or fitting						
		2"	3"	4"	6"	8"	10"	12"
Size of shell cutter or drill		1-1/2"	2-1/2"	3-1/2"	5-1/2"	7-1/2"	9-1/2"	11-1/2"
Cement-lined cast or ductile iron, A-C, concrete pipe, and steel pipe	Shell cutter†	-	51899	83203*	83134*	83135*	83140*	83141*
	Cutter hub	-	88338	83202	63740	63739	64240	33107
	Pilot drill / drill	88341	33976	683063	683063	83056*	683064	83139
	<b>Equipment Kit Ø</b>	-	-	<b>682324</b>	<b>682325</b>	<b>682326</b>	<b>682327</b>	<b>682328</b>
<b>Shell cutter OD††</b>		-	-	<b>3.3"</b>	<b>5.0"</b>	<b>6.6"</b>	<b>8.3"</b>	<b>10.0</b>
PVC/PEP	Shell cutter	-	-	537061	537062	682581	682583	682585
	Pilot shell cutter	-	-	681919	681919	681919	681919	681919
	Pilot Drill Extension	-	-	537068	537069	537069	537070	537070
	Pilot Drill Holder	-	-	537082	537082	537082	537082	537082
	Cutter Hub	-	-	83202	83202	83202	83202	83202

Ø Equipment kit includes shell cutter, pilot drill, cutter top, and MJ adapter

### Shell cutters to install tapping sleeves and valves

Material of pipe to be cut	Equipment	Size of valve or fitting				
		14"	16"	18"	20"	24"
Size of shell cutter or drill		11-1/2"	14-1/2"	17-1/2"	18-1/2"	18-1/2"
Cement-lined cast or ductile iron, A-C and concrete pipe	Shell cutter†	83141	83911*	89883*	83915*	83915*
	Cutter hub	33107	83909	581577	83917	83917
	Pilot drill	83139	83910	83916	83916	83916

\*Tungsten carbide tipped tool.

\*\*High speed steel tipped - DO NOT use on cement lined pipe, A-C pipe or concrete pipe.

\*\*\*Included in the Equipment Kit

†The outside diameter of these shell cutters is 1/2" less than the nominal size of the valve or fitting. This greatly reduces the wear on the outside edge of these cutters when making a lateral connection the same size as the main to be cut. It also reduces travel required to make a cut.

††Shell cutters for use on plastic pipe only.

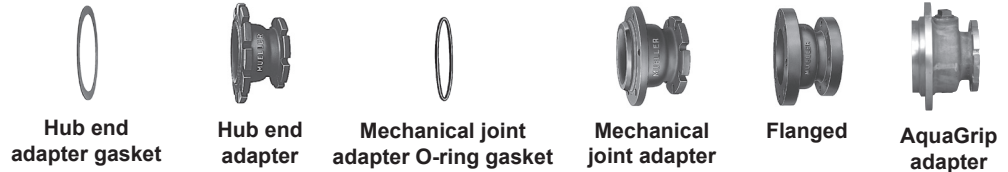
NOTE: Mueller recommended cutting grease is available in pints (88366).

Shell cutters to install gate valves or standard fittings on steel pipe

Material of pipe to be cut	Equipment	Size of valve or fitting											
		2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
Size of shell cutter or drill		1-1/2"	2-1/2"	3-1/2"	5-1/2"	7-1/2"	9-1/2"	10-13/16"	12"	14-1/2"	17-1/2"	18-1/2"	18-1/2"
Steel	Shell cutter	-	33518	33519	36004	33999	33244	33243	80549**	83911*	89883	83915*	83915*
	Cutter hub	-	88338	88340	63978	33996	33250	33107	54491	83909	581577	83917	83917
	Pilot drill	-	33976	33976	36005	64244	36338	36338	74871	83910	83916	83916	83916
	Drill	88341	-	-	-	-	-	-	-	-	-	-	-

**Mueller C1-36-99002 Drilling Machine adapter**

Adapters are required to permit the C1-36-99002 drilling machine to be attached to tapping valves, gate valves and standard flanged fittings.



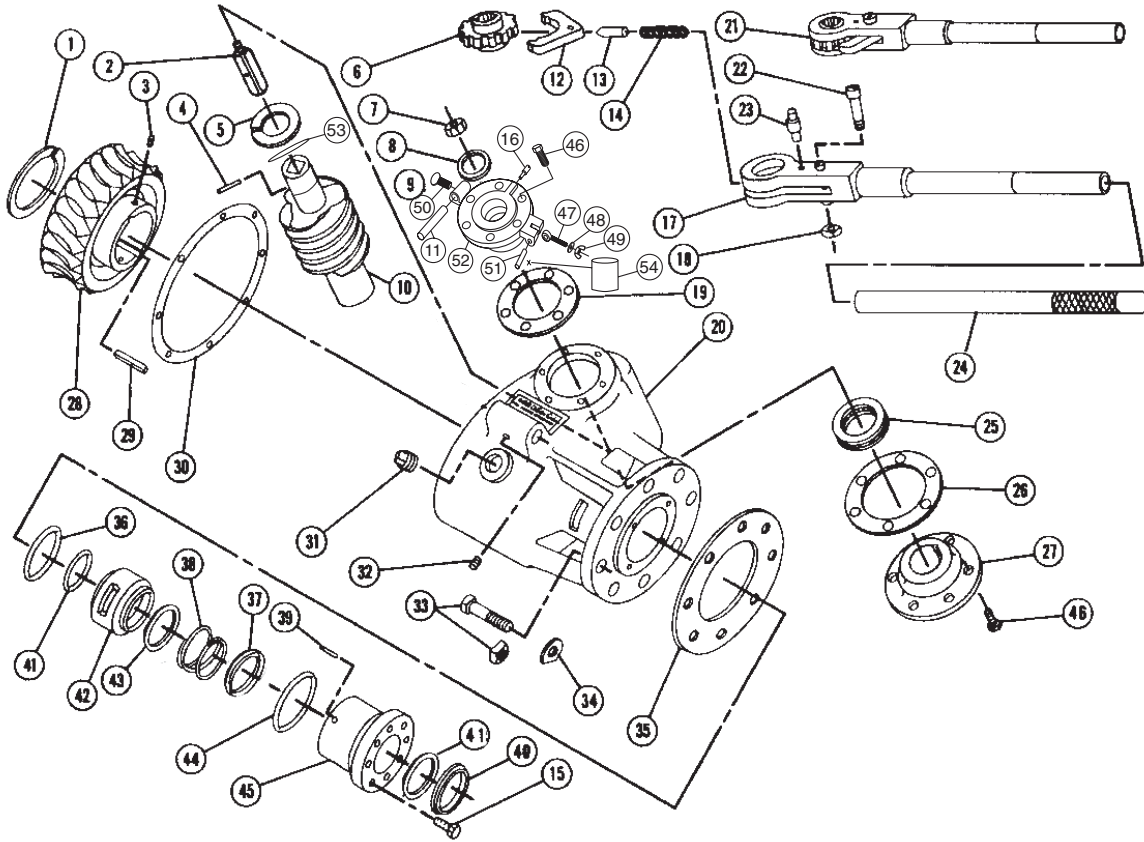
Tapping Valve Information			Adapter Part	Size of valve or fitting												
Valve end connection	Valve catalog no.	Maximum Working Pressure†		2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	
Mechanical Joint	T-2361 Series	250 psig @ 100F	Adapter complete	83432	83367	83368	83369	83370	83371	83372	-	-	-	-	-	
			Adapter only	52161	46269	46268	46267	46266	46265	46264	580521	83907	580479	83919	580762	
			O-ring Adapter gasket	307923	307925	307926	307927	307928	307929	307930	501716	501064	505004	501092	502539	
			Adapter bolts & nuts††	Part no. 503708 Quantity 2	Bolts and nuts are furnished with each mechanical joint tapping valve in these sizes											
Mechanical Joint Mfg. Aluminum	T-2361 Series	250 psig @ 100F	Adapter complete**	-	-	682589	682590	682591	682592	682593	-	-	-	-	-	
			Adapter only	-	-	537038	537040	537041	537050	537051	-	-	-	-	-	
AquaGrip Aluminum	T-2361 Series	250 psig @ 100F	Adapter complete	-	-	682352	682353	682354	682383	682384	-	-	-	-	-	
			Adapter only	-	-	528224	528225	528226	528320	528313	-	-	-	-	-	
			Adapter bolts	Part no.	-	-	194541	194541	194541	194541	194541	-	-	-	-	-
				Quantity	-	-	4	4	6	8	8	-	-	-	-	-
			Adapter nuts	Part no.	-	-	195237	195237	195237	195237	195237	-	-	-	-	-
				Quantity	-	-	4	4	6	8	8	-	-	-	-	-
			Washers	Part no.	-	-	092576	092576	092576	092576	092576	-	-	-	-	-
				Quantity	-	-	4	4	6	8	8	-	-	-	-	-
Plug	Part no.	-	-	36950	36950	36950	36950	36950	-	-	-	-	-			
	Quantity	-	-	4	4	6	8	8	-	-	-	-	-			
Adapters for flanged gate valves and standard flange fittings having ANSI 125/150 pound inlet flange Steel			Adapter only	89432	89433	89434	89435	89436	89437	89438	681577	89267	682031	89114	-	
Flange Aluminum	ANSI 125/150	250 psig @ 100F	-	-	683133	683065	683066	683067	683068	683132	-	-	-	-		
Flange Aluminum	PN10	250 psig @ 100F	-	-	683134	683073	683074	683075	683077	683079	-	-	-	-		
Flange Aluminum	PN16	250 psig @ 100F	-	-	683134	683073	683074	683076	683078	683080	-	-	-	-		
A-C or hub	T-2360 Series	200 psig @ 100F	Adapter complete	-	83361	83362	83363	83364	83365	83366	-	-	-	-	-	
			Adapter only	-	54560	54527	54515	54537	54658	54548	580521	83908	580479	89114	-	
			Adapter gasket	-	59772	59773	59774	59775	54677	54686	501716	501065	505025	501091	-	
			Adapter bolts & nuts	Part no.	-	56682	56682	54162	54162	94407	94407	90222	53987	90223	90223	-
				Quantity	-	6	6	6	6	8	10	12	14	14	14	-
			Washer	Part no.	-	58321	58321	92576	92576	98919	98919	98919	92576	98919	98919	-
Quantity	-	12		12	12	12	16	20	24	28	28	28	-			

\*Tungsten carbide tipped tool.  
 \*\*High speed steel tipped - DO NOT use on cement lined pipe, A-C pipe or concrete pipe.  
 † This is the maximum working pressure of the adapter at 100F (38C). This working pressure must be reduced accordingly if any attachment, valve, fitting or machine subjected to pressure during the use of this adapter, has a maximum working pressure less than that specified above.  
 †† Two of the four bolts and nuts needed to attach the adapter to the tapping valve are supplied with the adapter when ordered complete, or can be ordered separately. NOTE: These Adapters use the intermediate ring and O-ring from the valve to create a seal between the adapter and the valve end. The AquaGrip adapter comes tapped with a 2" IP thread and plug so a chip flushing valve can be utilized during the cut (valve not provided.)

**⚠ WARNING: Use on A-C pipe, which contains a known carcinogen, requires appropriate protective equipment and procedures be employed.**



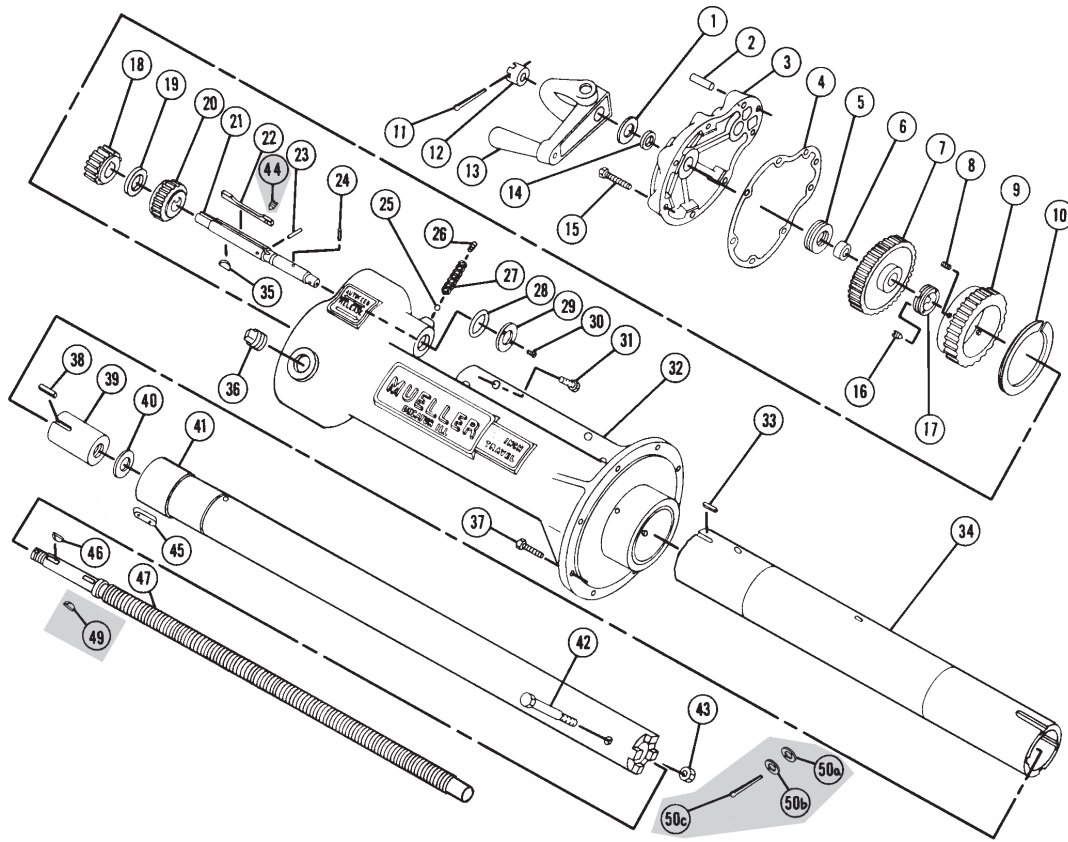
Rev. 8-04 Shaded area indicates changes



NOTE: These illustrations are for parts identification only. DO NOT use these illustrations for assembly or disassembly of machine. Mueller Co. offers a machine repair service. Contact Mueller® Customer Service Center for details.

Item No.	Part Number	Part Name	Item No.	Part Number	Part Name	Item No.	Part Number	Part Name
1	54426	Thrust washer	18	46255	Nut	37	44245	Convex follower
2	507160	Drive shaft	19	55467	Top bearing gasket	38	98000	Spring
3	90472	Set screw	20	526512	Drive box	39	47092	Rollpin (2)
4	507162	Rollpin	21	85308	Ratchet complete	40	501158	Wiper ring
5	54472	Thrust washer	22	40138	Bolt	41	312619	Quad ring (2)
6	40137	Ratchet wheel	23	40139	Stud	42	508427	Spacer
7	94825	Nut	24	86391	Handle extension	43	45115	Packing ring (4)
8	78827	O-ring	25	55541	Ball bearing	44	52162	Gland seal O-ring
9	580815	Top bearing complete (includes: 8, 11, 16, 46, 47, 48, 49, 50, 51, 52)	26	55478	Bottom bearing gasket	45	501151	Packing gland
			27	54443	Bottom bearing	46	55098	Socket head cap screw (6)
			28	55563	Worm gear	47	52389	Eyebolt
10	507161	Worm	29	54467	Key (2)	48	54012	Washer
11	54488	Pivot	30	55609	Gasket	49	94341	Wing nut
12	40004	Ratchet dog	31	64134	Plug	50	91665	Thumb screw
13	40006	Spring pin	32	98957	Set screw	51	48131	Roll pin
14	40007	Spring	33	56682	Bolt and nut (8)	52	502707	Bearing
15	55098	Hex cap screw (4)	34	55409	Washer (8)	53	51458	O-ring
16	72484	Latch	35	55449	Gasket	54	312169	Bearing
17	80111	Handle	36	508429	O-ring			

\* Order both parts when replacing either one.

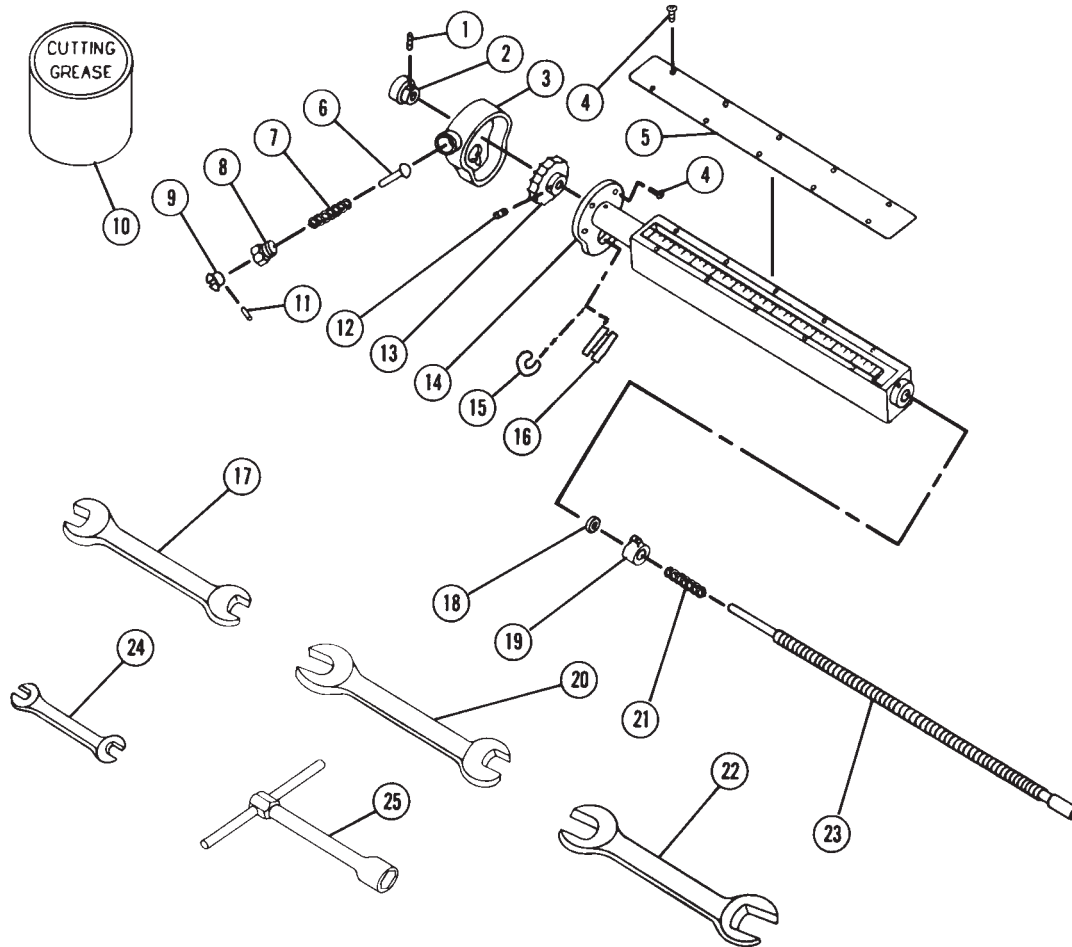


NOTE: These illustrations are for parts identification only. DO NOT use these illustrations for assembly or disassembly of machine. Mueller Co. offers a machine repair service. Contact Mueller® Customer Service Center for details.

Item No.	Part Number	Part Name	Item No.	Part Number	Part Name	Item No.	Part Number	Part Name
1	33090	Thrust washer	20	55432	Idler pinion driver	38	54445	Feed nut keys (2)
2	54545	Dowel pin	21	54470	Idler shaft	39	33404	Feed nut
3	508433	Rear cover	22	54469	Drive key	40	54418	Feed nut washer
4	33080	Rear cover gasket	23	63477	Drive key pin	41	88331	Boring bar assembly
5	55569	Thrust bearing	24	54538	Indicator drive pin	42	311866	Bolt
6	54630	Bushing	25	54702	Ball detent	43	58849	Nut
7	55567	Feed screw gear	26	99022	Set screw	44	312916	Set screw
8	98873	Set screws (2)	27	55610	Detent sprint	45	54482	Keys (2)
9	55564	Drive tube feed gear	28	79344	O-ring	46	98225	Key
10	54425	Feed gear thrust washer	29	508435	Oil seal retainer	47	43964	Feed screw
11	98928	Cotter pin	30	95257	Screws (2)	48	55098	Screws (2)
12	55601	Feed screw nut	31	92375	Screws (4)	49	537394	Key
13	88150	Crank & hoisting yoke	32	88481	Torque tube assembly (w/ bushings)	50a	312900	Cotter pin
14	311332	Oil seal O-ring				50b	312901	Washer
15	504333	Screw (7)				50c	312899	Washer
16	98956	Set screws (2)	33	54466	Feed gear key		89346	Lubricant
17	54433	Lock nut	34	33923	Drive tube			
18	501074	Idler pinion	35	300190	Key			
19	54471	Idler spacer	36	64134	Plug			
			37	55098	Cap screw (18)			

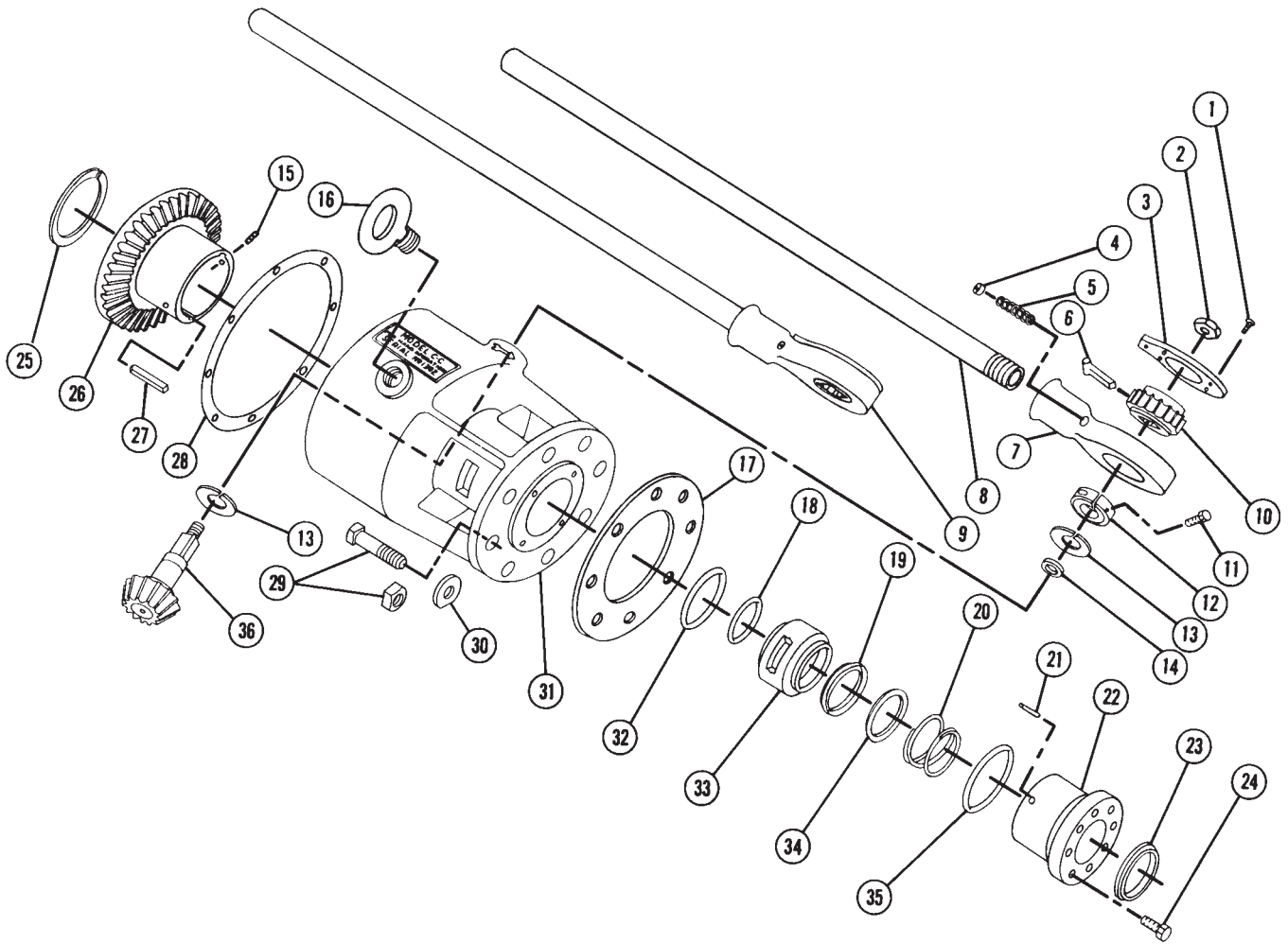
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Rev. 4-01 Shaded area indicates changes



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Item No.	Part Number	Part Name	Item No.	Part Number	Part Name	Item No.	Part Number	Part Name
1	99023	Knob set screw	10	88366	Cutting grease	19	501073	Indicator nut
2	54551	Indicator knob	11	56392	Pin	20	58196	Wrench
3	54446	Cover plate	12	97763	Wheel set screw	21	33083	Spring
4	37804	Screws (14)	13	54523	Wheel	22	55726	Wrench
5	33084	Indicator shield	14	54516	Indicator body	23	501077	Indicator screw
6	36361	Plunger	15	53747	Crank rollpin	24	96536	Wrench
7	36362	Spring	16	54454	Knob	25	59839	Socket wrench
8	36360	Body	17	56680	Wrench	-	-	-
9	36359	Detent knob	18	54549	Thrust washer	-	-	-



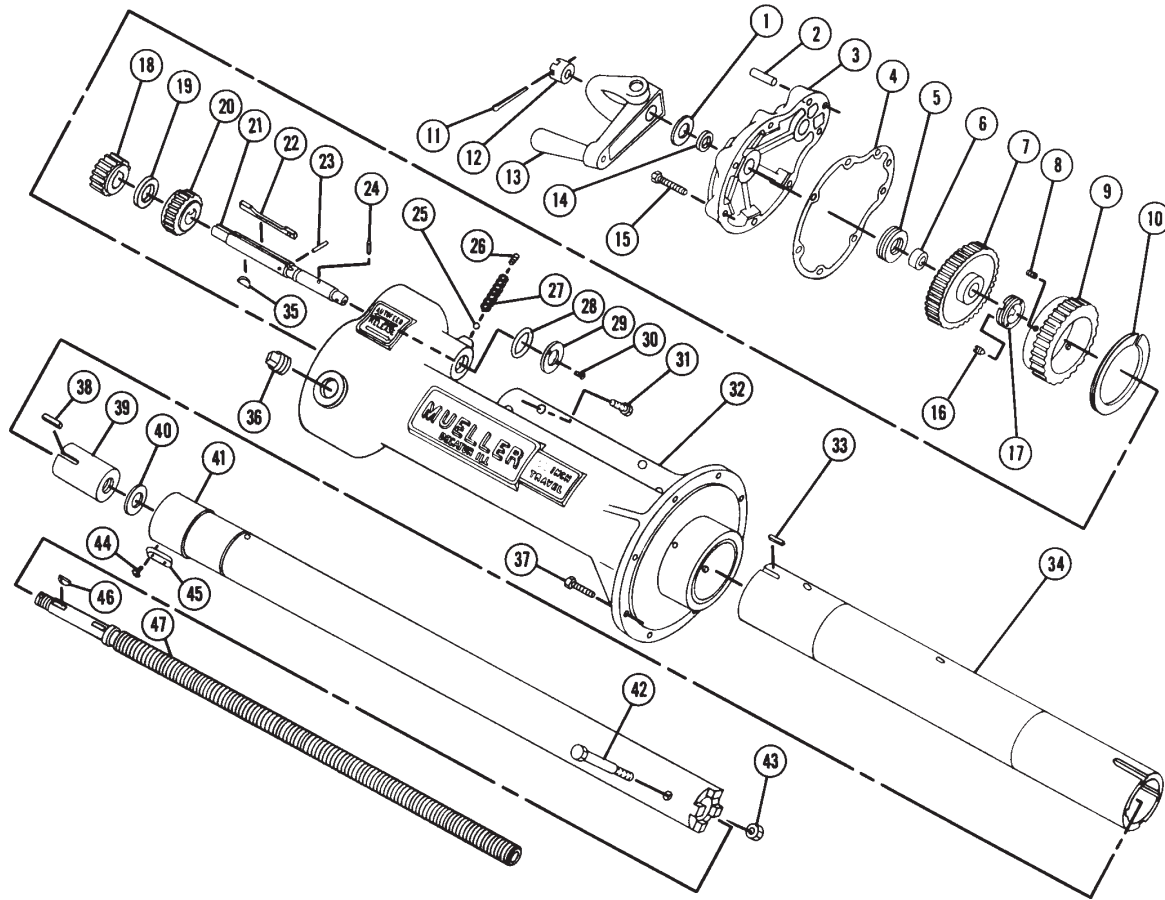
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THE "CC-25" MACHINE IS NO LONGER AVAILABLE; UNTIL FURTHER NOTICE, MUELLER WILL CONTINUE TO PROVIDE SPARE PARTS FOR THIS PRODUCT. CONTACT YOUR MUELLER REPRESENTATIVE ABOUT OTHER MACHINES THAT PERFORM WITHIN THE SPECIFICATIONS OF THIS MACHINE.

Item No.	Part Number	Part Name	Item No.	Part Number	Part Name	Item No.	Part Number	Part Name
1	52207	Screw	13	63842	Thrust washer	25	54426	Thrust washer
2	46029	Nut	14	508431	Oil seal	26	63844	Bevel gear
3	63851	Plate	15	90472	Set screw	27	54467	Key
4	56039	Spring screw	16	63846	Eyebolt plug	28	55609	Gasket
5	56774	Spring	17	55449	Gasket	29	56682	Bolt & nut
6	581959	Dog	18	508430	Boring bar seal	30	55409	Washer
7	57655	Body	19	45115	Packing ring	31	508428	Drive box
8	56632	Handlebar	20	98000	Spring	32	508429	Drive box seal
9	88148	Handle complete	21	47092	Rollpin	33	508427	Seal retainer & spacer
10	55790	Wheel	22	501151	Packing gland	34	44245	Convex follower
11	92754	Allen screw	23	501158	Wiper ring	35	52162	Gland seal
12	63848	Collar	24	55098	Cap screw	36	63845	Bevel pin

TO ORDER SPECIFY QUANTITY, PART NUMBER AND PART NAME (include catalog number and model number of machine).

Rev. 4-01 Shaded area indicates changes



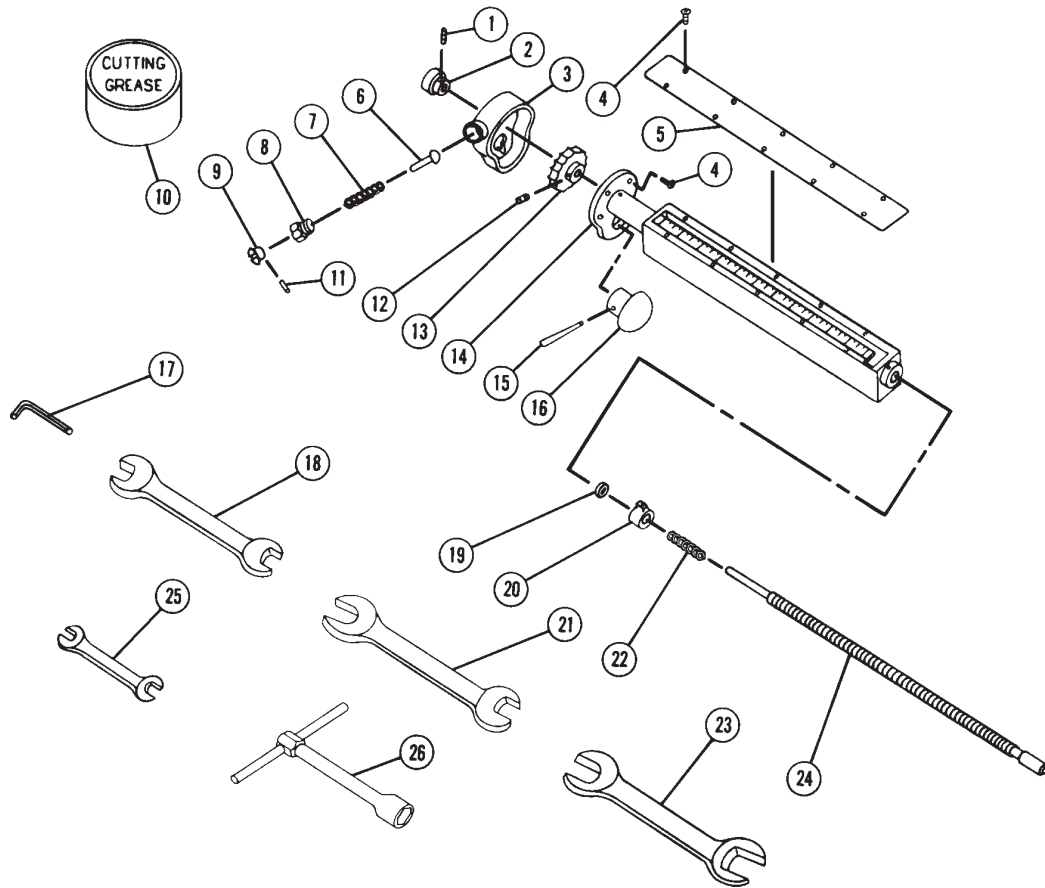
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Item No.	Part Number	Part Name	Item No.	Part Number	Part Name	Item No.	Part Number	Part Name
1	33090	Thrust washer	17	54433	Lock nut	33	54466	Key
2	54545	Dowel	18	55446	Idler pinion	34	55561	Drive tube
3	508433	Rear cover	19	54471	Spacer	35	300190	Key
4	33080	Gasket	20	55432	Idler pinion drive	36	64134	Plug
5	55569	Thrust bearing	21	54470	Idler shaft	37	55098	Cap screw
6	54630	Washer	22	54469	Dive key	38	54445	Key
7	55567	Feed screw gear	23	63477	Pin	39	55546	Feed nut
8	98873	Set screw	24	54538	Pin	40	54418	Washer
9	55564	Drive tube feed gear	25	54702	Ball	41	89094	Boring bar
10	54425	Thrust washer	26	99022	Set screw	42	311866	Bolt
11	98928	Pin	27	55610	Spring	42	58849	Nut
12	55601	Nut	28	508434	Oil seal	44	52182	Screw
13	88150	Crank	29	508435	Oil seal retainer	45	54482	Key
14	508432	Rear cover seal	30	95257	Screw	46	98225	Key
15	504333	Screw	31	92375	Screw	47	55565	Feed screw
16	98956	Set screw	32	88199	Torque tube	-	-	-

**TO ORDER SPECIFY QUANTITY, PART NUMBER AND PART NAME (include catalog number and model number of machine).**





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Item No.	Part Number	Part Name	Item No.	Part Number	Part Name	Item No.	Part Number	Part Name
1	99023	Set screw	10	88366	Cutting grease	19	54549	Washer
2	54551	Knob	11	56392	Pin	20	54519	Indicator nut
3	54446	Cover plate	12	97763	Set screw	21	58196	Wrench
4	37804	Screw	13	54523	Wheel	22	33083	Spring
5	33084	Shield	14	54516	Indicator body	23	55726	Wrench
6	36361	Plunger	15	53747	Knob pin	24	54517	Indicator screw
7	36362	Spring	16	54454	Knob	25	96536	Wrench
8	36360	Body	17	90322	Allen wrench	26	59839	Socket wrench
9	36359	Detent knob	18	56680	Wrench	-	-	-

Rev. 10-16 Shaded area indicates changes

## Mueller Mega-Lite Drilling Machine

- Catalog Number Mega-Lite (part # C39550)
- Power Operation
- Used to cut 1-1/2" to 11-1/2" holes
- 25" (635mm) boring bar travel
- Use on plain or cement lined ductile or cast iron, A/C, steel, PVC or HDPE pipe
- Will make cuts through tapping valves from 3" to 12"
- O-ring sealed boring bar - line pressure does not enter case
- Travel distance scale
- 250 psig (1725 kPa/17 barg) maximum working pressure



### Equipment furnished with each Mueller Mega-Lite Drilling Machine

- Wooden storage chest (not shown) (part # 537066)
- Allen Head Wrench (part # 537079)
- Pilot Drills (iron pipe part # 682573 / PVC part # 681919)
- Pilot Drill Extensions - page 3.21
- Adapter bolts and nuts (part # 54804 / washer part # 55409)
- Cutting grease #88366
- Instruction manual (Form # 12360)

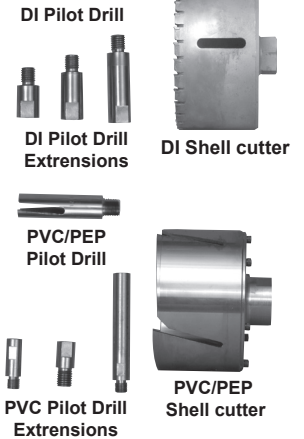
### Equipment to be selected

- Shell cutters - page 3.22
- Machine adapters - page 3.22
- Power operators - page 3.24
- 125F (51C) maximum working temperature

	Mega-Lite
Total shipping weight	162 lbs. (75 kg)
Machine only weight	65 lbs. (30 kg)
Machine length	65"
Machine length with power adaptor attached	75"

## Shell cutter and drill

Material of pipe to be cut	Tool	Size of Valve or fitting					
		3"	4"	6"	8"	10"	12"
		Drill or shell cutter size					
		2-1/2"	3-1/2"	5-1/2"	7-1/2"	9-1/2"	11-1/2"
Cast iron, ductile iron, cement-lined cast iron, cement-lined ductile iron, A-C, concrete, steel	Shell cutter* & hub	537071	537072	537073	537074	537075	537076
	Pilot Drill Assembly†	682573	682573	682573	682573	682573	682573
	Pilot Drill Extensions	-	-	-	537044	537045	537046
		Drill or shell cutter size					
		-	3.3"	5"	6.6"	8.3"	10"
PVC/PEP	Shell cutter** & hub	-	537052	537053	682574	682575	682576
	Pilot Drill Assembly	-	681919	681919	681919	681919	681919
	Pilot Drill Extensions	-	537047	537048	537048	537049	537049



\*Mounts directly to boring bar

\*\*Mounts directly to boring bar. Designed to cut up to DR9 PEP. Wall thickness 1.125 Max.

†Replaceable high speed tool steel drill tip - 537019.



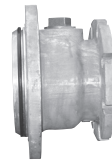
Hub end adapter gasket



Mechanical joint adapter O-ring gasket



Hub end adapter



Mechanical joint adapter



AquaGrip adapter



Flange adapter

## Mueller Mega-Lite Drilling Machine Adapters

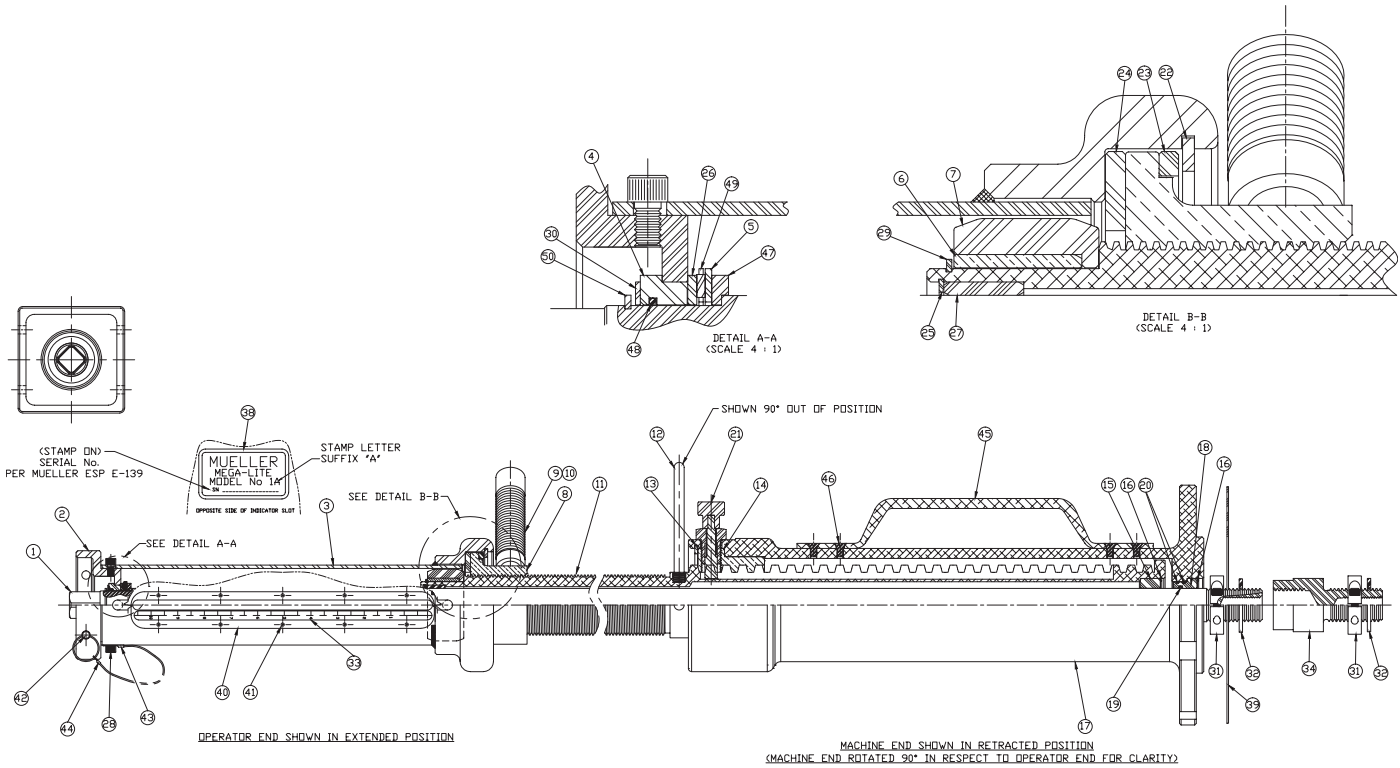
Tapping valve information	Valve catalog no.	Max working pressure*	Adapter part	Size of tapping valve							
				3"	4"	6"	8"	10"	12"		
Mechanical Joint** Mfg. Aluminum	T-2361	250 psig @ 100F	Adapter complete	83367	682589	682590	682591	682592	682593		
			O-ring adapter gasket	307925	307926	307927	307928	307929	307930		
			Adapter bolts & nuts	Part Number	054804	Bolts and nuts are furnished with each mechanical joint tapping valve in these sizes					
				Quantity	8						
			Washers	Part Number	55409						
Quantity	16										
AquaGrip**	T-2361	250 psig @ 100F	Adapter complete	-	682352	682353	682354	682383	682384		
			Adapter only	-	528224	528225	528226	528320	528313		
			Adapter bolts	Part Number	-	194541	194541	194541	194541	194541	
				Quantity	-	4	4	6	8	8	
			Adapter nuts	Part Number	-	195237	195237	195237	195237	195237	
				Quantity	-	4	4	6	8	8	
			Washer	Part Number	-	092576	092576	092576	092576	092576	
				Quantity	-	4	4	6	8	8	
			Plug	Part Number	-	36950	36950	36950	36950	36950	
				Quantity	-	4	4	6	8	8	
Flange Aluminum	ANSI 125/150	250 psig @ 100F	-	683133	683065	683066	683067	683068	683132		
Flange Aluminum	PN10	250 psig @ 100F	-	683134	683073	683074	683075	683077	683079		
Flange Aluminum	PN16	250 psig @ 100F	-	683134	683073	683074	683076	683078	683080		

\*This is the maximum working pressure of the adapter at 100F (38C). This working pressure must be reduced accordingly if any attachment, valve, fitting, or machine subjected to pressure during the use of this adapter, has a maximum working pressure less than that specified above.

\*\*Aluminum with 2" Chip Flushing Boss.

†3" Cast Iron

Rev. 9-09 Shaded area indicates changes



Item No.	Qty.	Part Number	Part Name	Item No.	Qty.	Part Number	Part Name
1	1	537000	Boring Bar	26	1	537368	Upper Thrust Washer
2	1	537001	Operator Adapter Plate	27	1	537029	Body Top Bearing
3	1	682570	Square Feed Connector Sub Asy	28	4	301123	Hex Socket Head Cap Screw
4	1	312690	Adapter Plate Bushing	29	1	537032	Square Bearing Retaining Ring
5	1	312862	Bearing Washer	30	1	537367	Retaining Ring Washer
6	1	537006	Inner Square	31	2	537034	Collar
7	1	537007	Square Plastic Bearing	32	2	537035	Washer
8	1	537092	Feeding Nut	33	1	537036	Ruler Strip
9	4	537009	Feeding Nut Handle	34	1	537043	Boring Bar Extension
10	4	537010	Grip	35	8	54804	Bolt with Heavy Nut
11	1	537011	Machine Body	36	16	55409	Washer
12	2	537083	Fast Feed Handle	37	1	537079	Tee Handle Hex Wrench
13	1	537013	Threaded Insert Retaining Ring	38	1	312130	Nameplate
14	1	537093	Threaded Insert	39	1	55449	Gasket
15	1	537015	Body Bottom Bearing	40	1	537084	Cover
16	2	537016	Body Bearing Retaining Ring	41	10	37806	Machine Screw
17	1	537018	Flanged Cylinder	42	2	537085	Lock Pin
18	1	537020	Pressure Bearing	43	2	537091	Ring Terminal
19	2	503218	O-Ring (124)	44	2	537086	Lanyard
20	2	537022	O-Ring (030)	45	1	537087	Handle
21	1	682639	Stop Bolt Assembly	46	4	52220	Machine Screw
22	1	537024	Feed Nut Retaining Ring	47	1	537369	Lower Thrust Washer
23	1	537025	Feed Nut Lower Bearing Washer	48	1	307365	O-ring
24	1	537026	Feed Nut Upper Bearing Washer	49	1	312692	Bearing
25	1	537027	Body Top Bearing Ret. Ring	50	1	312689	Retaining Ring

## H-614 Air Power Operator

- Catalog number H-614
- Attaches directly to CL-12 machine
- Attaches to C1-36-99002 machine using optional adapter 580815
- Non-reversible air motor
- 82 RPM maximum free speed; 51 RPM minimum speed under full load
- Air supply: 90 cubic feet of free air per minute at 90 psig (full load)
- Total shipping weight 65 lbs. (26 kg)
- Machine only weight 28 lbs. (13 kg)
- Shipped in a wooden storage chest

**IMPORTANT: MAINTAIN PRESSURE OF 90 PSIG—THE USE OF A GAGE AT THE THROTTLE TO DETERMINE THE ACTUAL PRESSURE OF AIR AT THE POWER OPERATOR IS RECOMMENDED.**

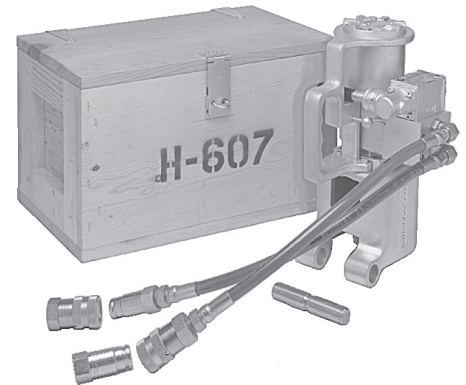
*Note: The H-600 and H-601 air power operators are no longer available but may still be repairable; contact your local Mueller representative for details on our repair program.*



**Optional adapter  
580815**

## H-607 Hydraulic Power Operator

- Catalog number H-607
- Attaches directly to CL-12 machine
- Attaches to C1-36-99002 machine using optional adapter 580815
- 61 RPM at 8 GPM
- Flow range: 7 - 9 GPM / 26-34 lpm
- 1500 psig/105 bar maximum working pressure at up to 397 ft/lbs of torque
- Open center system type
- Operator only weight 31 lbs. (14 kg)
- Flush-faced hydraulic fittings keep lines contamination-free
- 15" (approximate) non-conductive hoses
- Integral carrying handle
- Shipped in a wooden storage chest



**H-607 hydraulic power operator**



**Optional adapter  
580815**

*Note: The redesigned H-607 replaces the old H-607 and H-608 models.*



Rev. 1-09 Shaded area indicates changes

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**H-605 Air Power Operator**

- Catalog number H-605
- Attaches directly to Mega-Lite Machine
- 52 RPM maximum free speed
- Required air pressure - 90 psig
- Air consumption at maximum power - 36 scfm
- Stall torque 254 fl-lbs
- Operator weight is 15 lbs
- Shipped in a wooden storage chest

**H-705 Hydraulic Power Operator**

- Catalog number H-705
- Attaches directly to Mega-Lite Machine
- Flow range: 3-5 GPM
- 51 RPM at 4 GPM
- Maximum continuous operating pressure 850 psig
- Maximum intermittent pressure 1950 psig
- Operator weight is 30 lbs
- Shipped in a wooden storage chest

