

## Dorsey Dial Bore Gage

**Model DBL-248**

**Range .250 - .500**

Item	PT. No.	Part Name	Item	PT. No.	Part Name	Item	PT. No.	Part Name
1		.0001 Indicator	9		Screw	16	904	Cover Screw
2	120	Indicator Spring	10	1043	Handle	17	912	Extension Nut
3	110	Indicator Contact	11	908	Transfer	18	909-1	Range Extension
4	104	Indicator Housing	12	901	Gaging Head	19	909-2	Range Extension
5	305	Screw	13	905	Gaging Pin	20	909-3	Range Extension
6	911	Adapter	14	906	Retainer	21	903	Spring
7	907	Plunger Rod	15	902	Centralizer	22	913	Screw
8	910	Extension Tube						

### Dissassembly

1. Loosen two (2) screws (Det. 5) and remove indicator housing (Det. 4) from adapter (Det. 6). Remove dial indicator (Det. 1) from indicator housing (Det. 4).
2. Loosen locknut (Det. 17) and remove range extension (Det. 18, 19 or 20) from gaging head (Det. 12).
3. Loosen gaging head (Det. 12) from housing assembly (Det. 8). Remove plunger rod (Det. 7).
4. Loosen screw (Det. 22) and remove spring (Det. 21).
5. Loosen cover screw (Det. 16) and remove centralizer (Det. 15) from gaging head (Det. 12).
6. Remove retainer (Det. 14), gaging pin (Det. 13) and gaging transfer (Det. 11) from gaging head (Det. 12).

### Setting

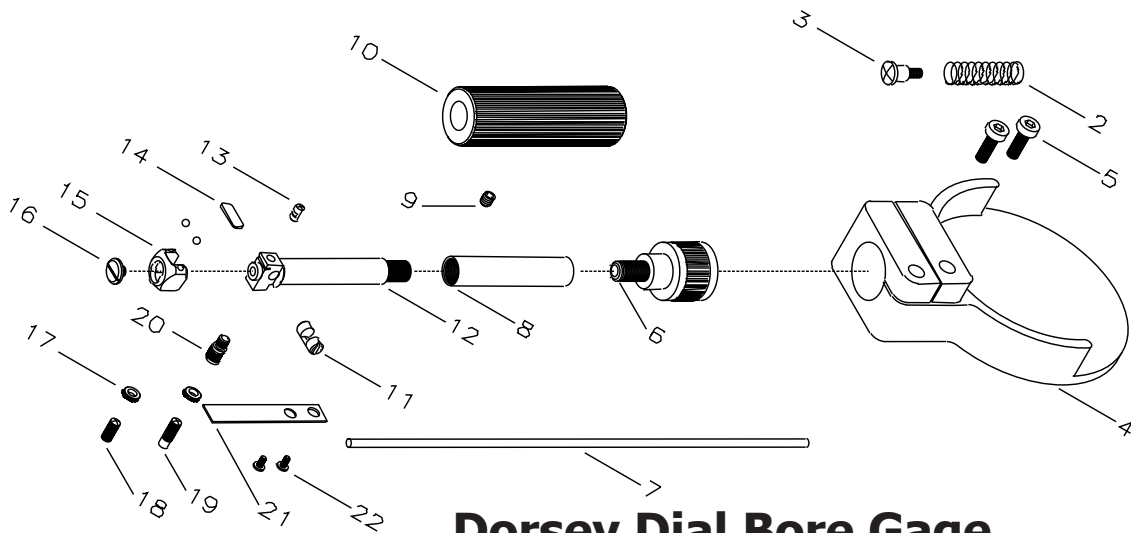
1. Insert appropriate range extension (Det. 18, 19 or 20) into gaging head (Det. 12) and adjust range extension to the approximate desired diameter.
2. Insert gage into reference master (master ring gage or gage block setup) and adjust range extension until dial indicator reads zero at first 12 o'clock position. Lock range extension in place with locknut (Det. 17).
3. Rock gage forward and back in reference master to insure

zero reading. Adjust indicator bezel to zero if necessary.

4. Repeat Step No. 3

### Assembly

1. Insert gaging transfer (Det. 11), gaging pin (Det. 13) and retainer (Det. 14) into gaging head (Det. 12).
2. Place centralizer (Det. 15) on gaging head (Det. 12) and hold with cover screw (Det. 16).
3. Insert plunger rod (Det. 7) into gaging head (Det. 12). Place housing assembly (Det. 8) over plunger rod (Det. 7) and fasten to gaging head (Det. 12).
4. Insert spring (Det. 21) and lock in place with screw (Det. 22).
5. Insert dial indicator (Det. 1) into indicator housing (Det. 4) and place onto adapter (Det. 6). Lock in place with two (2) screws (Det. 5) insuring proper contact of indicator with plunger rod (Det. 7).
6. Thread lock nut (Det. 17) onto range extension (Det. 18, 19 or 20) and assemble extension to gaging head (Det. 12).



## Dorsey Dial Bore Gage

Model DBL-499

Range .50 - 1.00

Item	PT. No.	Part Name	Item	PT. No.	Part Name	Item	PT. No.	Part Name
1		.0001 Indicator	9		Screw	16	1016	Lock Screw
2	120	Indicator Spring	10	1043	Handle	17	1013	Extension Nut
3	110	Indicator Contact	11	1020	Transfer	18	1014-1	Range Extension
4	104	Indicator Housing	12	1010	Gaging Head	19	1014-2	Range Extension
5		Screw	13	1030	Gaging Pin	20	1015	Adapter
6	1008	Adapter	14	1022	Locking Bar	21	1050	Spring
7	1047	Plunger	15	1002	Centralizer	22		Screw
8	1045	Extension Tube						

### Dissassembly

- Loosen two (2) screws (Det. 5) and remove indicator housing (Det. 4) from adapter (Det. 6). Remove dial indicator (Det. 1) from indicator housing (Det. 4).
- Loosen locknut (Det. 17) and remove range extension (Det. 18 or 19) and adapters (Det. 20) from gaging head (Det. 12).
- Loosen gaging head (Det. 12) from housing assembly (Det. 8). Remove plunger rod (Det. 7).
- Loosen cover screw (Det. 16) and remove centralizer (Det. 15) from gaging head (Det. 12).
- Remove retainer (Det. 14), gaging pin (Det. 13) and gaging transfer (Det. 11) from gaging head (Det. 12).

### Setting

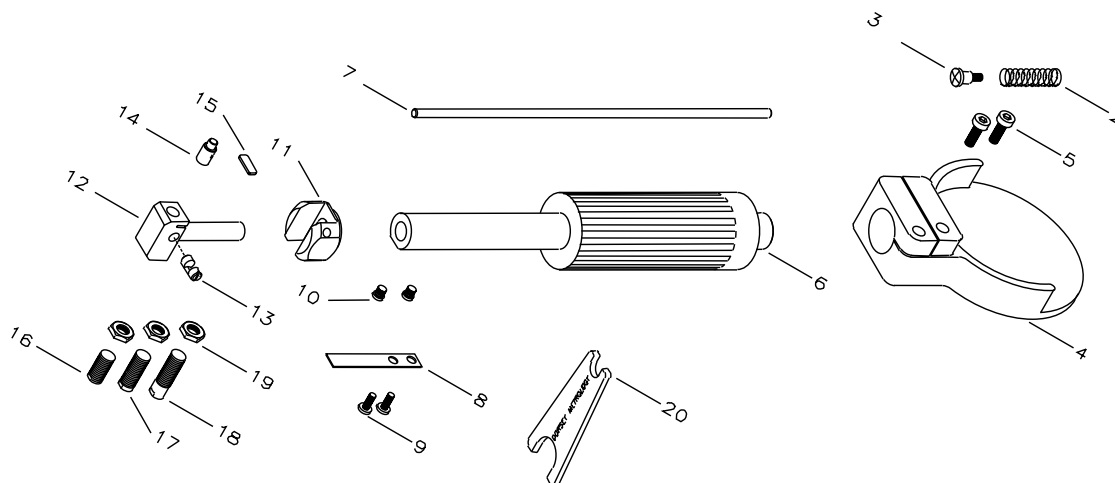
- Insert appropriate range extension (Det. 18 or 19) and adapters (Det. 20) into gaging head (Det. 12) and adjust range extension to the approximate desired diameter.
- Insert gage into reference master (master ring gage, bore gage setmaster or gage block setup) and adjust range extension until dial indicator reads zero at first 12 o'clock position. Lock range extension in place with locknut (Det. 17).
- Rock gage forward and back in reference master to insure

zero reading. Adjust indicator bezel to zero if necessary.

- Repeat Step No. 3

### Assembly

- Insert gaging transfer (Det. 11), gaging pin (Det. 13) and retainer (Det. 14) into gaging head (Det. 12).
- Place centralizer (Det. 15) on gaging head (Det. 12) and hold with cover screw (Det. 16).
- Insert plunger rod (Det. 7) into gaging head (Det. 12). Place housing assembly (Det. 8) over plunger rod (Det. 7) and fasten to gaging head (Det. 12).
- Insert spring (Det. 21) and lock in place with two (2) screws (Det. 22).
- Insert dial indicator (Det. 1) into indicator housing (Det. 4) and place onto adapter (Det. 6). Lock in place with two (2) screws (Det. 5) insuring proper contact of indicator with plunger rod (Det. 7).
- Thread lock nut (Det. 17) onto range extension (Det. 18 or 19) and assemble extension to adapters (Det. 20) and gaging head (Det. 12).



## Dorsey Dial Bore Gage

**Model DBL-998**

**Range 1.00 - 1.50**

Item	PT. No.	Part Name	Item	PT. No.	Part Name	Item	PT. No.	Part Name
1		.0001 Indicator	8	1150	Spring	15	1122	Retainer
2	120	Indicator Spring	9		Screw	16	1114-1	Range Extension
3	110	Indicator Contact	10		Screw	17	1114-2	Range Extension
4	104	Indicator Housing	11	1102	Centralizer	18	1114-3	Range Extension
5		Screw	12	1110	Gaging Head	19	1113	Extension nut
6	1145	Housing Assembly	13	1120	Transfer	20	1160	Wrench
7	1147	Plunger Rod	14	1130	Gaging Pin			

### Dissassembly

1. Loosen two (2) screws (Det. 5) and remove indicator housing (Det. 4) from adapter (Det. 6). Remove dial indicator (Det. 1) from indicator housing (Det. 4).
2. Loosen locknut (Det. 19) with wrench (Det. 20) and remove range extension (Det. 16, 17 or 18) from gaging head (Det. 12).
3. Loosen two (2) screws (Det. 9) and remove spring (Det. 8).
4. Loosen two (2) screws (Det. 10) and disengage housing assembly (Det. 6). Remove plunger rod (Det. 7).
5. Remove centralizer (Det. 11) from gaging head (Det. 12).
6. Remove retainer (Det. 15) from gaging head (Det. 12). Remove gaging pin (Det. 14) and gaging transfer (Det. 13).

### Setting

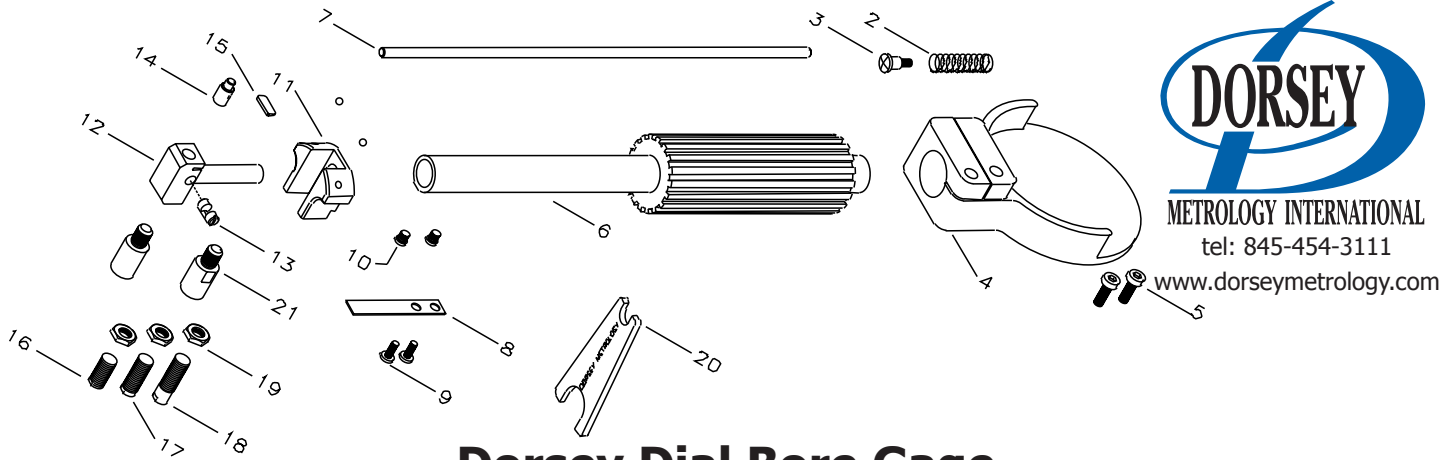
1. Insert appropriate range extension (Det. 16, 17 or 18) into gaging head (Det. 12) and adjust range extension to the approximate desired diameter.
2. Insert gage into reference master (master ring gage, bore gage setmaster or gage block setup) and adjust range extension until dial indicator reads zero at first 12 o'clock position.

Lock range extension in place with locknut (Det. 19).

3. Rock gage forward and back in reference master to insure zero reading. Adjust indicator bezel to zero if necessary.
4. Repeat Step No. 3

### Assembly

1. Insert gaging pin (Det. 14), gaging transfer (Det. 13) and retainer (Det. 15) into gaging head (Det. 12).
2. Place centralizer (Det. 11) over gaging head (Det. 12).
3. Insert plunger rod (Det. 7) into gaging head (Det. 12). Place housing assembly (Det. 6) over plunger rod (Det. 7) onto gaging head (Det. 12) and lock in place with two (2) screws (Det. 10).
4. Insert spring (Det. 8) and lock in place with two (2) screws (Det. 9).
5. Insert dial indicator (Det. 1) into indicator housing (Det. 4) and place onto housing assembly (Det. 6). Lock in place with two (2) screws (Det. 5) insuring proper contact of indicator with plunger rod (Det. 7).
6. Thread lock nut (Det. 19) onto range extension (Det. 16, 17 or 18) and assemble extension to gaging head (Det. 12).



## Dorsey Dial Bore Gage

Model DBL-1499

Range 1.50 - 3.00

Item	PT. No.	Part Name	Item	PT. No.	Part Name	Item	PT. No.	Part Name
1		.0001 Indicator	8	1150	Spring	15	1122	Retainer
2	120	Indicator Spring	9		Screw	16	1114-1	Range Extension
3	110	Indicator Contact	10		Screw	17	1114-2	Range Extension
4	104	Indicator Housing	11	1202	Centralizer	18	1114-3	Range Extension
5		Screw	12	1210	Gaging Head	19	1113	Extension Nut
6	1245	Gaging Body	13	1120	Transfer	20	1160	Wrench
7	1247	Plunger Rod	14	1130	Gaging Pin	21	1217	Adapter

### Dissassembly

- Loosen two (2) screws (Det. 5) and remove indicator housing (Det. 4) from adapter (Det. 6). Remove dial indicator (Det. 1) from indicator housing (Det. 4).
- Loosen locknut (Det. 19) with wrench (Det. 20) and remove range extension (Det. 16, 17 or 18) and adapters (Det. 21) from gaging head (Det. 12).
- Loosen two (2) screws (Det. 9) and remove spring (Det. 8).
- Loosen two (2) screws (Det. 10) and disengage housing assembly (Det. 6). Remove plunger rod (Det. 7).
- Remove centralizer (Det. 11) from gaging head (Det. 12).
- Remove retainer (Det. 15) from gaging head (Det. 12). Remove gaging pin (Det. 14) and gaging transfer (Det. 13).

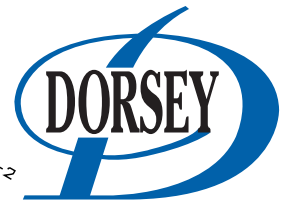
### Setting

- Insert appropriate range extension (Det. 16, 17 or 18) and adapters (Det. 21) into gaging head (Det. 12) and adjust range extension to the approximate desired diameter.
- Insert gage into reference master (master ring gage, bore gage setmaster or gage block setup) and adjust range extension until dial indicator reads zero at first 12 o'clock position. Lock range extension in place with locknut (Det. 19).

- Rock gage forward and back in reference master to insure zero reading. Adjust indicator bezel to zero if necessary.
- Repeat Step No. 3

### Assembly

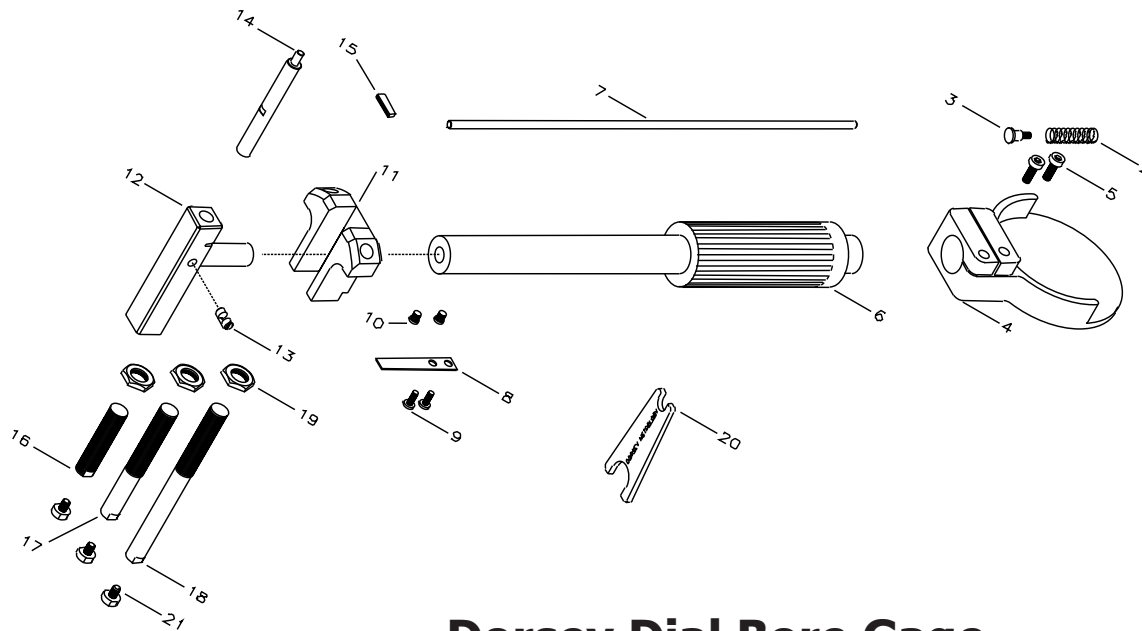
- Insert gaging pin (Det. 14), gaging transfer (Det. 13) and retainer (Det. 15) into gaging head (Det. 12).
- Place centralizer (Det. 11) over gaging head (Det. 12).
- Insert plunger rod (Det. 7) into gaging head (Det. 12). Place housing assembly (Det. 6) over plunger rod (Det. 7) onto gaging head (Det. 12) and lock in place with two (2) screws (Det. 10).
- Insert spring (Det. 8) and lock in place with two (2) screws (Det. 9).
- Insert dial indicator (Det. 1) into indicator housing (Det. 4) and place onto housing assembly (Det. 6). Lock in place with two (2) screws (Det. 5) insuring proper contact of indicator with plunger rod (Det. 7).
- Thread locknut (Det. 19) onto range extension (Det. 16, 17 or 18) and assemble extension to adapters (Det. 21) and gaging head (Det. 12).



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## Dorsey Dial Bore Gage

Model DBL-300

Range 3.00 - 6.00

Item	PT. No.	Part Name	Item	PT. No.	Part Name	Item	PT. No.	Part Name
1		.0001 Indicator	8	1150	Spring	15	1322	Retainer
2	120	Indicator Spring	9		Screw	16	1314-1	Range Extension
3	110	Indicator Contact	10		Screw	17	1314-2	Range Extension
4	104	Indicator Housing	11	1302	Centralizer	18	1314-3	Range Extension
5		Screw	12	1310	Gaging Head	19	1313	Extension Nut
6	1345	Gaging Body	13	1120	Transfer	20	1360	Wrench
7	1347	Plunger Rod	14	1330	Gaging Pin	21	1315	Gaging Contact

### Dissassembly

- Loosen two (2) screws (Det. 5) and remove indicator housing (Det. 4) from adapter (Det. 6). Remove dial indicator (Det. 1) from indicator housing (Det. 4).
- Loosen locknut (Det. 19) with wrench (Det. 20) and remove range extension (Det. 16, 17 or 18) from gaging head (Det. 12).
- Loosen two (2) screws (Det. 9) and remove spring (Det. 8).
- Loosen two (2) screws (Det. 10) and disengage housing assembly (Det. 6). Remove plunger rod (Det. 7).
- Remove centralizer (Det. 11) from gaging head (Det. 12).
- Remove retainer (Det. 15) from gaging head (Det. 12). Remove gaging pin (Det. 14) and gaging transfer (Det. 13).

Lock range extension in place with locknut (Det. 19).

- Rock gage forward and back in reference master to insure zero reading. Adjust indicator bezel to zero if necessary.
- Repeat Step No. 3

### Assembly

- Insert gaging pin (Det. 14), gaging transfer (Det. 13) and retainer (Det. 15) into gaging head (Det. 12).
- Place centralizer (Det. 11) over gaging head (Det. 12).
- Insert plunger rod (Det. 7) into gaging head (Det. 12). Place housing assembly (Det. 6) over plunger rod (Det. 7) onto gaging head (Det. 12) and lock in place with two (2) screws (Det. 10).
- Insert spring (Det. 8) and lock in place with two (2) screws (Det. 9).
- Insert dial indicator (Det. 1) into indicator housing (Det. 4) and place onto housing assembly (Det. 6). Lock in place with two (2) screws (Det. 5) insuring proper contact of indicator with plunger rod (Det. 7).
- Thread lock nut (Det. 19) onto range extension (Det. 16, 17 or 18) and assemble extension to gaging head (Det. 12).

### Setting

- Insert appropriate range extension (Det. 16, 17 or 18) into gaging head (Det. 12) and adjust range extension to the approximate desired diameter.
- Insert gage into reference master (master ring gage, bore gage setmaster or gage block setup) and adjust range extension until dial indicator reads zero at first 12 o'clock position.