Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Dayton® 24, 36, 50" Slip Rolls

ENGLISH

Description

Dayton 24, 36 and 50" Slip Rolls are hand operated and constructed of a heavy duty, cast iron base and frame with ground, high carbon steel rolls. The slip rolls use three adjustable rolls to fabricate straight cylinder as small as the diameter of the rolls, and cones of limited dimensions. There are wire forming grooves on the rolls which are used to form wire loops, curves of various thickness and diameters, and cylinder from metal with wired edges. Closed cylinders, cones and wire loops can be removed from the machine without distortion by a pivot -able tip roll.

Unpacking

Refer to Figure 1 and 2.
Check for shipping damage. If damage has occurred, a claim must be filed with carrier. Check for completeness. Immediately report missing parts to dealer.
Carefully open crate and unbolt brake from shipping pallet and remove from crate using heavy duty lifting equipment such as an overhead crane.

WARNING ***Be careful not to touch overhead power lines, piping, lighting, etc. If lifting equipment is used. Brake weighs approximately 300 lbs. Proper tools, equipment and qualified personnel should be employed in all phases of unpacking and installation.***

The slip rolls come assembled as one unit. Additional parts which need to be fastened to the tool should be located and accounted for before assembling.

13W881
Remove the Crank handle assembly (Fig 1, Ref. No. 27-29) from the bottom roll (Fig 1, no. 34), reverse position and replace it on to the bottom roll again.

13W882 and 13W883
Remove Crank handle assembly (Fig 2, Ref. No. 10, 28, 38 &12) from the bottom (Fig 2, No. 6), reverse position and replace it on to the bottom roll again.
IMPORTANT: Rolls are coated with a protectant. To ensure proper fit
Avoid getting cleaning solution on paint or any of the rubber or plastic parts. Solvents may deteriorate these finishes. Use soap and water on paint, plastic or rubber components. After cleaning, cover all exposed surfaces with a light coating of oil.

WARNING ***Never use highly volatile solvents. Non-flammable solvents are recommended to avoid possible fire hazard.***

General Safety Information

WARNING ***For your own safety, read all of the instructions and precautions before operating***

CAUTION ***Always follow proper operating procedures as defined in this manual even if you are familiar with use of this or similar tools. Remember that being careless for even a fraction of a second can result in severe personal injury.***

BE PREPARED FOR JOB

1. Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of machine.
2. Wear protective hair covering to contain long hair.
3. Wear safety shoes with non-slip soles.
4. Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are NOT safety glasses.
5. Be alert and think clearly. Never operate tools when tired, intoxicated

Specificsations

Specification	13W881	13W882	13W883
Max thickness (mild steel)	20 gauge 0.03"	16 gauge .06"	16 gauge .06"
Max length	24"	36"	50"
Roll diameter	1 ½"	2"	3"
Min cylinder size formed	1 ½"	2"	3"
Wire groove diameter	3/16, 1/4, 5/16"	3/16, 1/4, 11/32"	1/4, 3/8, 7/16"
Overall diameter	38 x 9 ½ x 15"	53 x 17 x 19"	69 x 19 x 20"
Weight	82 lbs	209 lbs	539 lbs

Dayton® 24, 36, 50" Slip Rolls

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General Safety Information (Con't)

1. Work area should be properly lighted.

2. Keep visitors at a safe distance from work area.

3. Keep children out of workplace. Make workshop childproof. Use padlocks to prevent any unintentional use of tools**.**

TOOL SHOULD BE MAINTAINED

1. Consult manual for specific maintaining and adjusting procedures.

2. Keep tool lubricated and clean for safest operation.

3. Remove adjusting tools. Form habit of checking to see that adjusting tools are removed before using machine.

4. Keep all parts in working order. Check to determine that the guard or other parts will operate properly and perform their intended function.

5. Check for damaged parts. Check for alignment of moving parts, binding, breakage, and mounting or any other condition that may affect a tool's operation.

6. A guard or other damaged part should be properly repaired or replaced. Do not perform makeshift repairs. (Use parts list provided to order repair parts.)

KNOW HOW TO USE TOOL

1. Use right tool for job. Do not force tool or attachment to do a job for which it was not designed.

2. Keep hands out of path of shearer blades and clear from male and female dies.

3. Do not exceed capacity of the machine. Exceeding capacity may be dangerous to operator and damage the machine. See the specifications from maximum capacities of the slip rolls.

4. Bolt machine to floor or sturdy stand that is bolted to floor to prevent sliding or tipping of machine.

Installation

Machine should be installed on a level surface, with proper lighting. Machine is to be stand-mounted or bench-mounted. Be sure to provide clearance for crank arm rotation. Use the four mounting holes in the base to bolt machine securely to bench or stand (fasteners not included). Area around machine should be clear of scraps, oil or dirt. Apply a suitable non-skid material to floor. Allow approximately three feet of clearance on all sides of the slip rolls for ease of operation.

Operation

Refer to Figures 1 and 2.

1**. Adjust material thickness**

Adjust the bottom roll position. Insert the workpiece between the top and bottom rolls (13W881- Fig 1, No. 11 and 34, 13W882 & 13W883 – Fig 2, No 5 & 6). Turn the bottom roll adjusting knobs (13W881- Fig 1, No. 23 & 18, 13W882 & 13W883 – Fig 2, No 16, 36 & 37) until the work piece fits tightly between the rolls.

2. **Adjust the diameter of cylinder**

Adjusting the position of the rear roll (13W881 - Fig 1 No 20, 13W882 & 13W883 - Fig 2 No 18) controls the size of the cylinder that will be formed. Setting roll lower forms a larger diameter cylinder, setting the roll higher forms a smaller diameter cylinder. Because material spring back varies with the type of metal being formed, several test workpieces may need to be formed to obtain correct adjustment of the rear roll.

Turn the rear roll adjusting knobs (13W881 – Fig 1 No. 17 & 18, 13W882 & 13W883 – Fig 2 No. 11, 36, & 37) to raise or lower the rear roll. Turn crank arm (13W881 – Fig 1 No. 27, 13W882 & 13W993 – Fig 2 No. 10) clockwise, until workpiece is through the rolls. Check diameter of test workpiece, and adjust the rear roll if necessary.

Repeat until the correct adjustments are obtained. Rolls must be adjusted parallel or the workpiece will spiral during the rolling process.

3. When the cylinder has been formed completely, it can be removed without distortion.

13W881

Refer to Figure 1.

Grasp the pivot sleeve (Ref. No. 26) and pull out from the frame (Ref. No. 25). Pulling the pivot sleeve forward will move the top roll out of the frame.

13W882 and 13W883

Refer to Figure 2.

Unscrew Bolt (No. 42) & Nut (No.41) and lift up the cover (Ref. No. 8). Rotate the handle (Ref No. 45) to lift up the top roll. The top roll can be removed out of the stand.

4. When rolling a workpiece near capacity thickness and length, it may be necessary to pass the workpiece through rolls several times to reduce clinker to the desired diameter.

Adjust rear roll so that the workpiece can pass through the rolls without difficulty. Slightly raise the rear roll before each succeeding pass until the desired diameter is obtained.

5. To form cylinders which have diameters that are approximately the same size as the rolls, reverse rolling is employed. Insert the workpiece from the rear side over the rear roll

Model 13W881, 13W882, 13W883

Operation (Con't)

(lower roll if necessary), and into the top and bottom rolls. Ensure the workpiece by turning the bottom roll adjusting knobs. (13W881 – Fig 1 No. 23 & 18, 13W882 & 13W883 – Fig 2 No.16, 36 & 37)). Bend the workpiece as far as possible by raising the rear roll using the rear roll adjusting knobs. Rotate crank arm counter clock wise to form cylinder.

6. To reduce the flat spot on the starting edge of thicker materials, reverse the workpiece after the first pass. Feed the edge of the workpiece that passed through the roll last, first on the next pass.

Below is an equivalency chart for use when working with material other than mild steel:

Maintenance

LUBRICATION
Coat rolls with light oil to prevent rusting.

13W881 - MONTHLY

Refer to Figure 1.

1. Use medium weight, non-detergent oil and multi-purpose or bearing grease.

2. Oil the rolls through the oil holes located in the guide blocks (ref. No. 19) and on top of the pivot block (Ref. No. 9).

3. Grease the bearing surface of the right side of the top roll.

4. Grease the gears (Ref. No. 5 and 8).

13W883 & 13W883- MONTHLY

Refer to Figure 2.

1. Oil the rolls through the oil holes located in the rear stands (Ref. No. 26)) and the roller base (Ref. No. 4).

2. Grease the gears (Ref. Nos. 17, 23). And grease the bearing surface of the right side of the top roll.

EQUIVALENCY CHART

Specification	16 Gauge	20 Gauge	22 Gauge
Mild steel	.060"	.036"	.030"
Stainless steel	.036"	.025"	.020"
SAE 1050 cold-rolled steel	.048"	.030"	.024"
Aluminum	.100"	.062"	.054"
Soft brass	.072"	.051"	.046"
1/2 Hard brass	.064"	.036"	.030"
Annealed phosphor bronze	.064"	.040"	.034"
Soft copper	.072"	.051"	.046"
Hard copper	.064"	.040"	.034"
ABS plastic	.200"	.120"	.095"

Troubleshooting Chart

Symptom	Possible Cause(s)	Corrective Action
Crank handle difficult to rotate	1. Workpiece material too thick	1. Do not exceed machine capacity, see specifications, page 1
	2. Top and bottom rolls too tight	2. Loose adjusting knob (13W881 – Fig 1 No. 23 & 18, 13W882 & 13W883 – Fig 2 No. 16, 36 &37)
	3. Improper lubrication	3. Lubricate properly, see Lubrication, page 3
	4. Curvature too severe for workpiece thickness	4. Adjust rear roll lower for less curvature, pass workpiece through rolls several times, increasing the curvature with each successive pass.
Workpiece spirals or deforms	Roll are not parallel	Adjust roll parallel, See Operation Page 2

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For Repair Parts, call 1-800-323-0620

24 hours a day – 365 days a year

Please provide following information:

-Model number
-Serial number (if any)
-Part description and number as shown in parts list

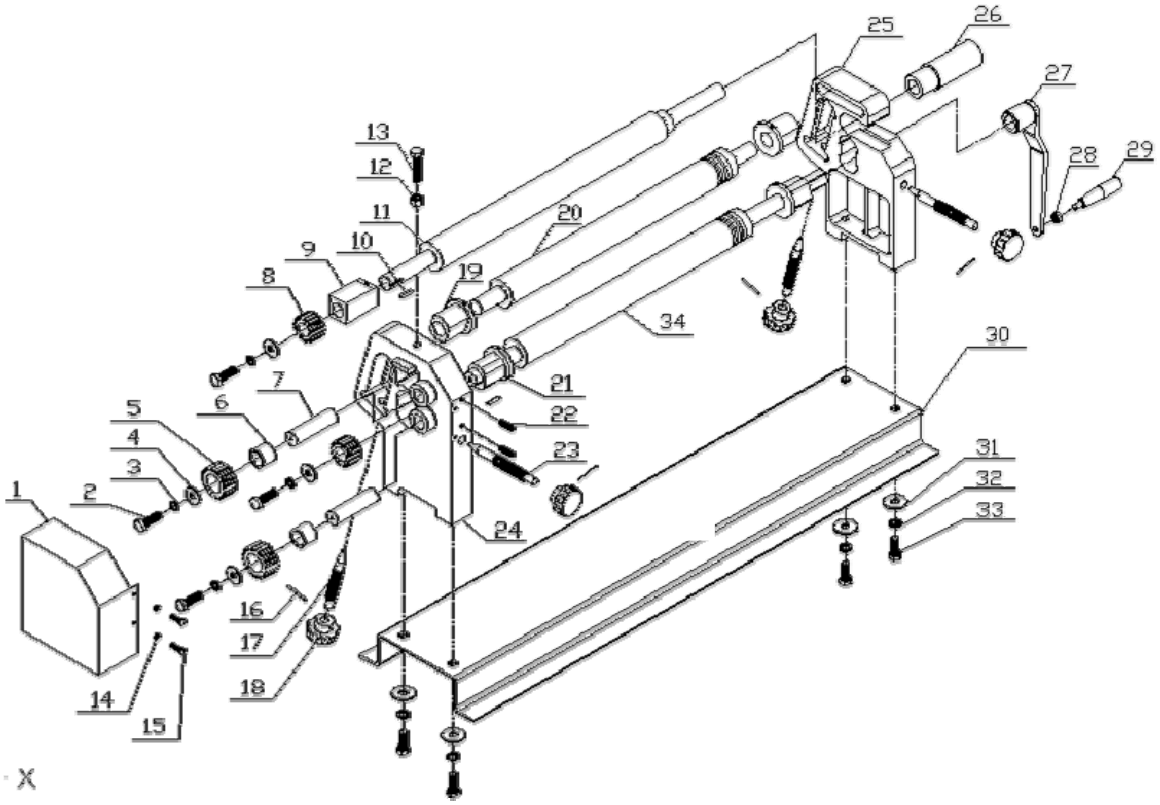

Figure 1 – Repair Parts Illustration for 24” slip roll 13W881

Repair Parts List for 24" Slip Roll – 13W881

Ref. No.	Description	Part Number	Qty
1	Gear cover	†	1
2	Hex head bolt M10X6	*	4
3	Spring washer 10mm	*	4
4	Flat washer 10mm	*	4
5	Gear wheel	†	2
6	Bearing	†	2
7	Gear shaft	†	2
8	Gear wheel	†	2
9	Pivot block	†	1
10	Key 6X25mm	TT4J610010G	1
11	Top roll	†	1
12	Nut M12	*	1
13	Hex bolt M12X50	*	1
14	Spring washer	*	2
15	Socket head screw M6X10	*	2
16	Spring pin	*	4
17	Rear roll adjusting rod	TT4J610017G	2
18	Knob	TT4J610018G	4
19	Roll guide block	†	2
20	Rear roll	†	1
21	Roll guide block	†	2
22	Screw M8X30	*	2
23	Bottom roll adjusting rod	TT4J610023G	2
24	Left frame	†	1
25	Right frame	†	1
26	Pivot sleeve	†	1
27	Crank arm	TT4J610027G	1
28	Nut M10	*	1
29	Crank handles	TT4J610029G	1
30	Base	*	1
31	Lock washer 12mm	*	4
32	Flat washer 12mm	*	4
33	Hex head bolt M12X30	*	4
34	Bottom roll	†	1

(†) Not available as repair part.

(*) Standard hardware item, available locally.

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24 hours a day – 365 days a year

Please provide following information:
-Model number
-Serial number (if any)
-Part description and number as shown in parts list

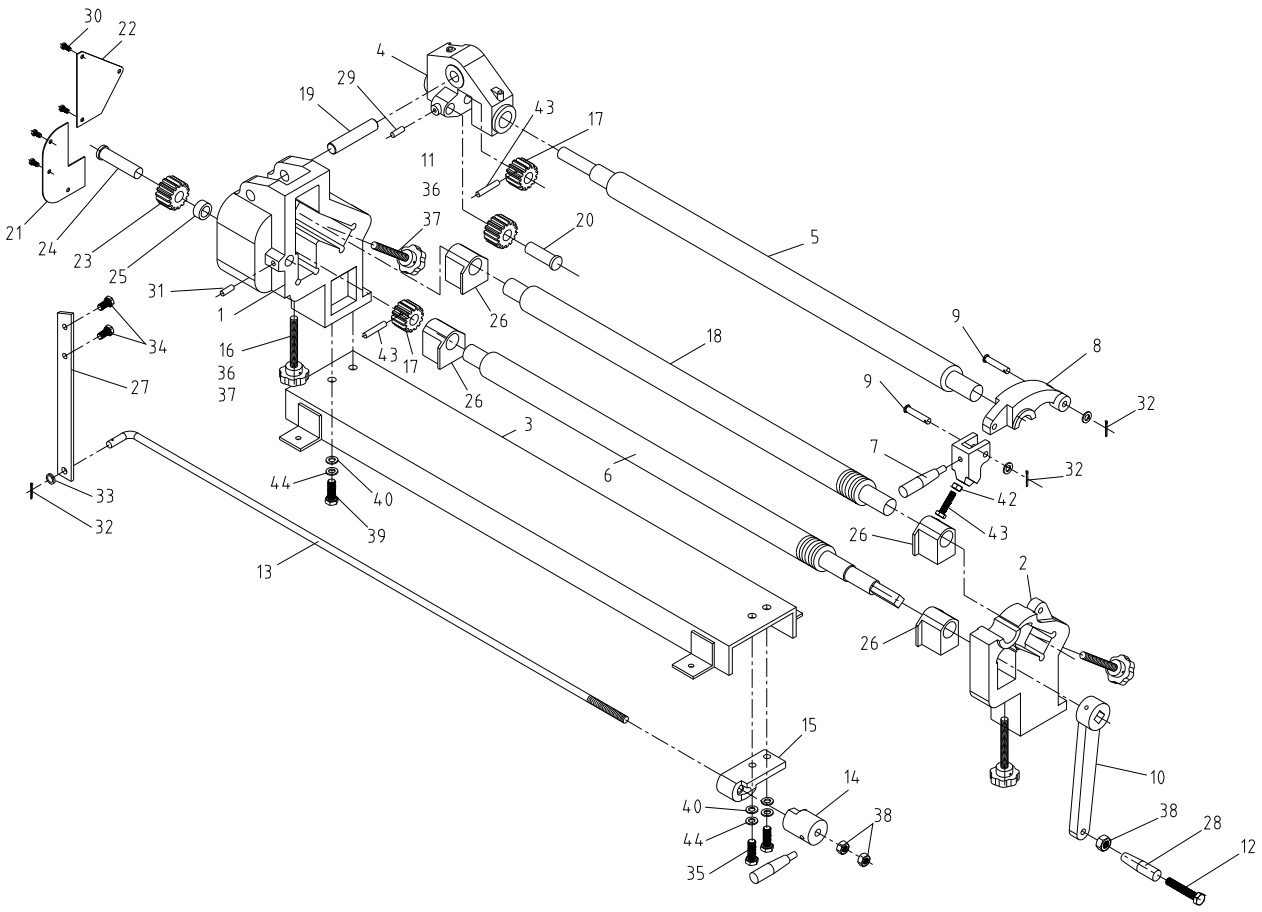

Figure 2 – Repair Parts Illustration for 36” slip roll (13W882) and 50” slip roll (13W883)

Repair Parts List for 36" Slip Roll – 13W882

Ref. No.	Description	Part No.	QTY
1	Left stand	†	1
2	Right stand	†	1
3	Stand base	†	1
4	Roller base	†	1
5	Top Roller	†	1
6	Bottom Roller	†	1
7	Lock knob 10X80mm	TT4J915007G	2
8	Cover	†	1
9	Pin	†	2
10	Crank arm	TT4J915010G	1
11	Adjustment screw	*	2
12	Hex head bolt M12X55	*	1
13	Draw bar	†	1
14	Knob	TT4J915014G	1
15	Draw bar stand	†	1
16	Adjustment screw	†	2
17	Gear	†	2
18	Rear roller	†	1
19	Shaft	†	1
20	Shaft	†	1
21	Cover left	†	1
22	Cover right	†	1

Ref. No.	Description	Part No.	QTY
23	Gear	†	2
24	Gear locking shaft	†	1
25	Bearing	†	1
26	Roller stand	†	4
27	Lever	†	1
28	Handle cover	TT4J915028G	1
29	Screw M8X10	*	1
30	Screw M6X14	*	6
31	Screw M8X20	*	1
32	Linch pin 2.5X25	*	3
33	Washer 12mm	*	1
34	Hex head bolt M10 x 20	*	2
35	Hex head bolt M12x40	*	2
36	Handle knob	*	4
37	Pin 3x25	*	4
38	Nut M12	*	3
39	Hex head bolt M12x30	*	2
40	Washer 12mm	*	4
41	Nut M10	*	1
42	Hex head bolt M10x50	*	1
43	Pin 6x35	*	2
44	Washer 12mm	*	4
45	Roller Lifting handle	TT4J915045G	1

(†) Not available as repair part.

(*) Standard hardware item, available locally.

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Repair Parts List for 50" Slip Roll – 13W883

Ref. No.	Description	Part No	QTY
1	Left stand	†	1
2	Right stand	†	1
3	Stand base	†	1
4	Roller base	†	1
5	Top Roller	†	1
6	Bottom Roller	†	1
7	Lock knob	TT 4J1300007G	2
8	Cover	†	1
9	Pin	†	2
10	Crank arm	TT4J1300010G	1
11	Adjustment screw	*	2
12	Hex head bolt M12X55	*	1
13	Draw bar	†	1
14	Knob	TT4J1300014G	1
15	Draw bar stand	†	1
16	Adjustment screw	†	2
17	Gear	†	2
18	Rear roller	†	1
19	Shaft	†	1
20	Shaft	†	1
21	Cover left	†	1
22	Cover right	†	1

Ref. No.	Description	Part No	QTY
23	Gear	†	2
24	Gear locking shaft	†	1
25	Bearing	†	1
26	Roller stand	†	4
27	Lever	†	1
28	Handle cover	TT4J1300028G	1
29	Screw M8X10	*	1
30	Screw M6X14	*	6
31	Screw M8X20	*	1
32	Linch pin 2.5X25mm	*	3
33	Washer 12mm	*	1
34	Hex head bolt M10X20	*	2
35	Hex head bolt M16X45	*	2
36	Handle knob	*	4
37	Pin 3X25mm	*	4
38	Nut M12	*	3
39	Hex head bolt M16X25	*	2
40	Washer 12mm	*	4
41	Nut M12	*	1
42	Hex head bolt M12X55	*	1
43	Pin 6X55mm	*	1
44	Washer 16mm	*	4
45	Roller Lifting handle M12x100	TT4J1300045G	1

(†) Not available as repair part.

(*) Standard hardware item, available locally.

Notes

Service Record

Dayton® 24, 36, 50" Slip Rolls

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Date	Maintenance performed	Repair components require

Dayton® 24, 36, 50" Slip Rolls

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LIMITED WARRANTY

DAYTON ONE-YEAR LIMITED WARRANTY.

DAYTON® 24, 36, 50" SLIP ROLLS, MODELS COVERED IN THIS MANUAL, ARE WARRANTED BY DAYTON ELECTRIC MFG. CO. (DAYTON) TO THE ORIGINAL USER AGAINST DEFECTS IN WORKMANSHIP OR MATERIALS UNDER NORMAL USE FOR ONE YEAR AFTER DATE OF PURCHASE. ANY PART WHICH IS DETERMINED TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP AND RETURNED TO AN AUTHORIZED SERVICE LOCATION, AS DAYTON DESIGNATES, SHIPPING COSTS PREPAID, WILL BE, AS THE EXCLUSIVE REMEDY, REPAIRED OR REPLACED AT DAYTON'S OPTION. FOR LIMITED WARRANTY CLAIM PROCEDURES, SEE "PROMPT DISPOSITION" BELOW. THIS LIMITED WARRANTY GIVES PURCHASERS SPECIFIC LEGAL RIGHTS WHICH VARY FROM JURISDICTION TO JURISDICTION.

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Manufactured for Dayton Electric Mfg. Co., 100 Grainger Parkway, Lake Forest, Illinois 60045-5201 U.S.A.