



WC50

Shown with roller tube, end plugs, & weight kit- Sold separately



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870-236-7751 or 800-643-0095



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Concreting is hard work but with the correct use of your Roller Screed, "It's never been easier."

- a. Remember your Roller Screed is a mechanical machine having considerable torque. Don't attempt to mess with "Superman" - You're in a no win situation.
- b. Never operate the equipment or stand near the machine/tube with loose items of clothing about your person (eg. Draw cords on wet weather clothing). These could become entangled around the tube which may mean you could be drawn in and cause bodily injury.
- c. As the Screeding machine is being pulled backwards during strike-off, the operator should take extreme caution not to slip and become entangled on a mesh pour. Should this occur, a sprung throttle device is provided to ensure the machine stops immediately, should the operator's hand leave the trigger.

Serial Number: _____

Engine Number: _____

Requirement

For Safety in Shipping, both fuel and oil have been removed and they must be replaced prior to start-up.

- a. Unleaded Gasoline (Petrol) ONLY.
- b. 2.7 oz. of 4-Stroke Premium Engine Oil (10w/30 Grade) Change oil every 50 hrs

Uncrate

The following are components supplied with your machine:

- 1- Roller Screed Drive End Assembly
- 1- Opposite End Handle Assembly
- 1- Drive End Self-Align Plug with Spring Pin
- 1- Opposite End Self-Align Plug with Spring Pin
- 1- Operation Instruction Manual

Optional

Weight kit

Roller Screed Tube

Transportation & Storage

Remove the spring pins from opposite and drive end plugs to remove tube from machine and handle. Stabilize the unit while in transit to protect the tube and engine. Store in a dry, safe environment when the machine is not in use.

Maintenance

No scheduled maintenance on gears or Roller Screed parts. Clean any concrete from unit and tube after every use. Allowing concrete to dry on unit or tube may cause harm to unit.

ATTENTION!

FOR PROPER CARE, SAFETY INSTRUCTIONS, MAINTENANCE AND HONDA ENGINE OPERATION INSTRUCTIONS READ AND FULLY UNDERSTAND THE HONDA ENGINE OWNERS MANUAL.

Assembly

Alignment plugs

Insert Self-Align Plugs into Roller Tube as seen below. Fig. 5A

Tighten the three bolts on the Self-Align Plugs until the plug is secured in the tube. Leave no gap between the plug and tube. (DO NOT over tighten.) Fig. 5B



Figure 5A



Figure 5B

Attaching drive end

Remove the spring pin from drive end. Attach the Roller Screed Drive End Assembly to the Drive End Align Plug, securing it with the spring pin. See Fig. 5C

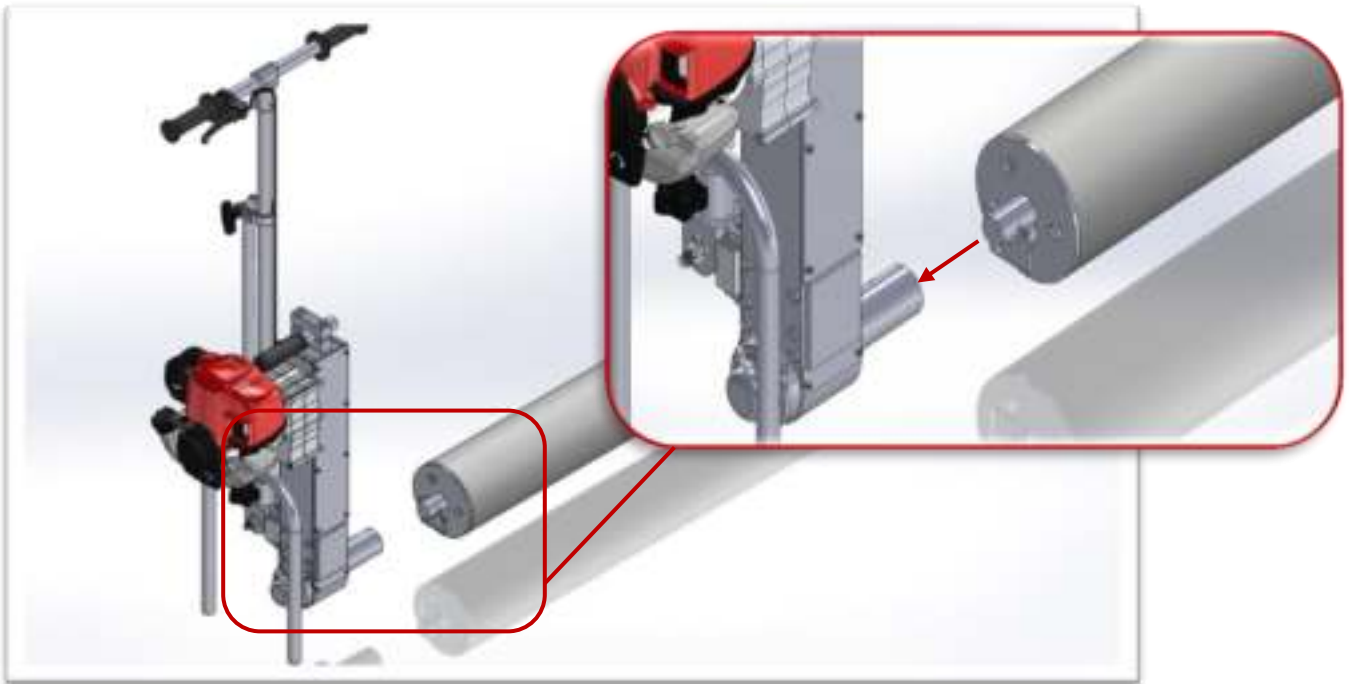


Figure 5C

Assembly

Attaching opposite end handle

Remove Spring Pin from the opposite end plug. Attach Opposite End Handle Assembly to the Opposite End Plug (opposite of the power unit), securing it with the spring pin. See Fig 6A

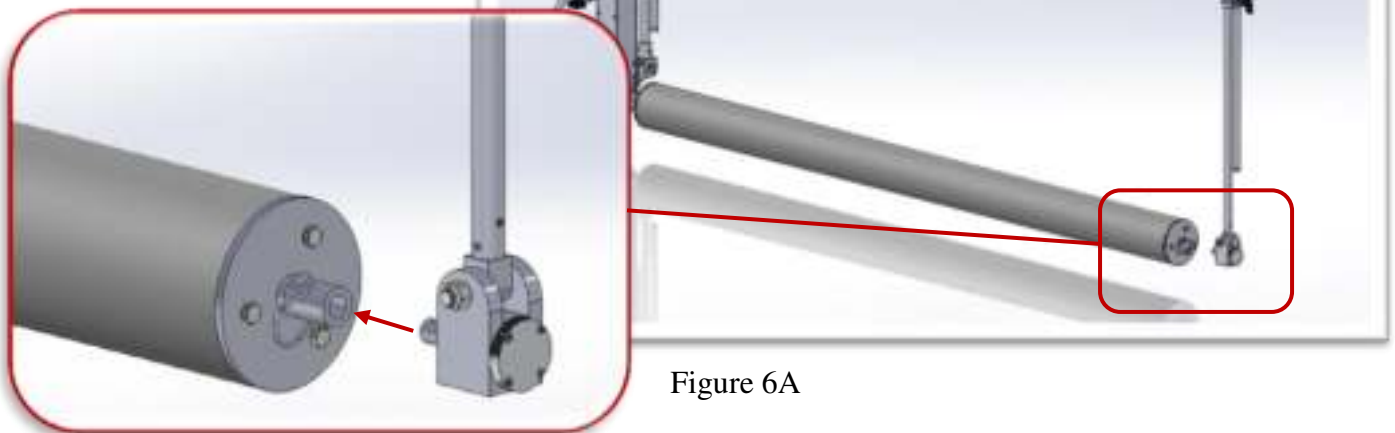


Figure 6A

Setting up handles & kickstand

To make transportation & storage easier, the drive handle is locked in the upright position. To unlock, remove the hitch pin from handle stop shown in Fig. 6B

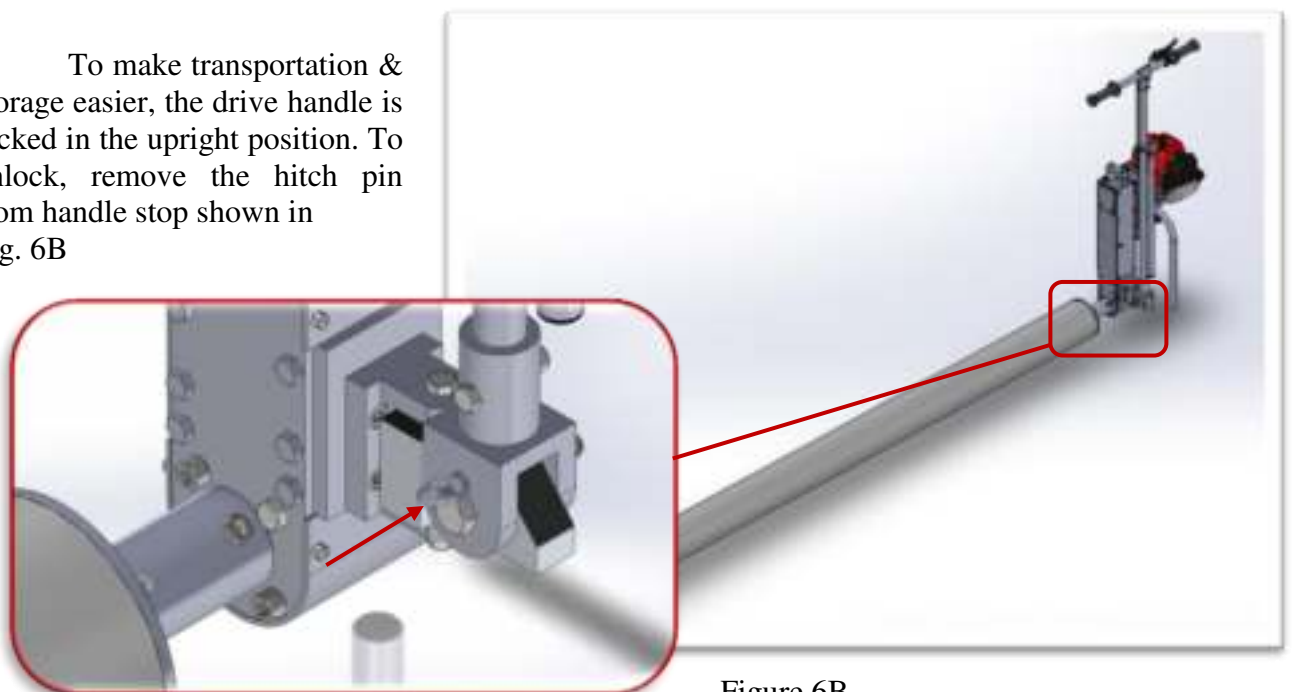


Figure 6B

Assembly

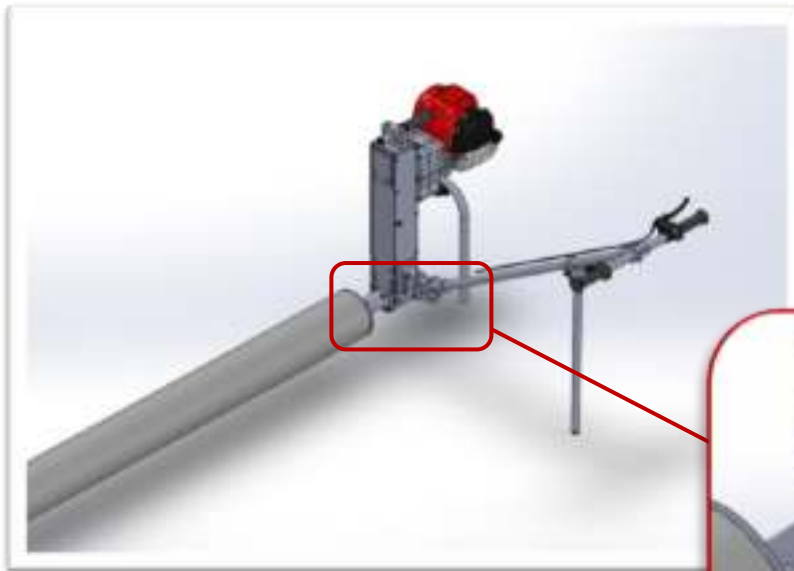
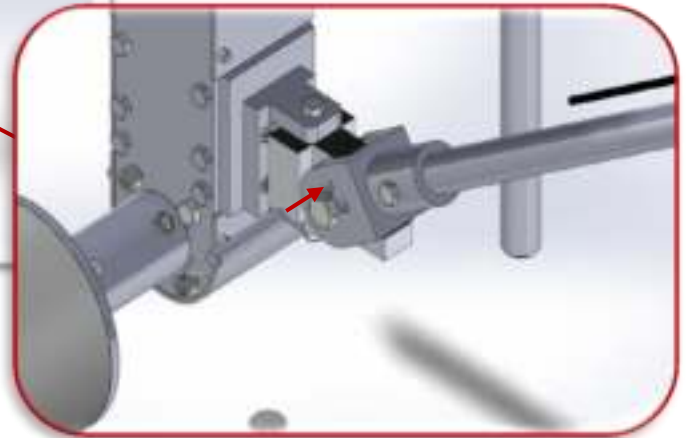


Figure 7A

Pull the drive handle back until the other hole is lined up. Put the hitch pin back in to lock handle shown in Fig 7A. Loosen kickstand knob and pull out kickstand to allow handle to stand up



Ready to use

Start up the engine and let it warm up (3 – 5 min) before operating at normal throttle. (See the Honda Manual for detailed instruction on how to start engine.)

Lift the entire unit and place upon the forms within the pour itself. Once placement has begun, ensure that the concrete covers the entire bay between the forms before attempting the screeding process. Deflection is a consideration in any type of screeding machine marketed and it is imperative that the concrete itself supports a portion of the weight of the tube when in operation, this makes for flatter floor



Operating Tips

No initial training is required to operate the equipment, but a good understanding of how concrete works is recommended.

Do not use equipment in extreme weather conditions (rain, sleet, snow, etc.). Moisture inside the engine can cause damage.

When you pick a tube for a slab, exceed the span by at least 600mm (2 ft.). If you are going to be working around a lot of obstructions, give yourself at least 900mm (3 ft.). As you approach an obstruction, one operator will lag as the other advances to cut a steep angle. Then they switch to an opposite angle and jump. At this point, manually trim the “V” shaped area forward just enough for the tube to grab it, and then proceed.

Metal expands and contracts according to its temperature. This causes the tube to bow when it has been parked for a period of 30 seconds in direct sunlight. The differences in temperature between the sunny side and the concrete side makes the tube deflect slightly. You may not notice this in a span less than 7.9m (26ft.). You can strike in heavier build up for 30 seconds or more to bring your tube to a proper temperature. This should be done before you attempt to venture back onto a previous area to begin a strike-off pass.

Special care must be taken with tubes 7.9m (26ft.) or longer. Novice operators will find themselves unsure of whether to proceed or to back up. If you stop traveling with the tube spinning, you will notice it begin to jump slightly. Tubes of this length will tend to flex under this condition, if they aren't traveling either forward or back. Always spin long length tubes slightly slower than you would tubes of less than 7m (23ft).

If you are going to stop, turn off the tube. Also, tubes of 7.9m (26ft) or longer run at a slower rpm than shorter tubes. With care, one can expect good strikes to a span of 8.5m (28ft). Even though we sell tubes longer than 8.5m (28ft), they are not expected to span any wider than 8.5m (28ft). Avoid excessive passes when using tubes over 7.9m (26ft). Make one pass to strike off the excess, then another pass to correct any errors and provide a uniform surface.

In pursuit of a low slump and superflat slabs, you will find your tube very useful in floating and trimming procedures. You may use the tube to trim the surface after the slab is partially set. If you are adding material or color to the surface, the tube will introduce these materials into the surface, by traveling with the spin. You still lift the valve to the up position, but always travel back instead of striking forward.

Tolerance

An ideal concrete mix design has a slump of 100mm (4 inches). Slump any wetter is a step in the wrong direction. This tool operates on friction between the face of the tube and the major aggregate. When working properly, the buildup breaks away from the body of the slab to tumble ahead of the tube. If the slump is too wet, the tube cannot gather or accumulate this build up properly. Under this condition, you will see the buildup slide ahead of the tube, rather than tumble.

When the tool is on a level slab, it is pulled by the operators at an upward angle. If you operate light tubes in a slump which is 76mm (3 inches) or lower, they will tend to ride high when they encounter build up. This is more pronounced if the major aggregate is larger than 37mm (1'). This is not the case on slope because the tool is drawn forward in the line with the plane of the slab.

Matrix

Finishers who are accustomed to the surface left by a vibratory screed, are usually startled by the presence of major aggregate existing at the surface. Don't panic. You must realize that when the slab is this flat, you do not need a lot of fine material on top, to apply a finish. As you reach about mid set, you will feel the stability of this major aggregate holding your surface from shifting during floating process.

Jobs with quality control supervision will not allow surface vibration because of the segregation of materials at the surface. The heaviest item in the mix is rock and the lightest is water. Surface vibration causes the surface to result in lower density. It also causes an increased water/cement ratio in this critical area of the slab. The Rollerscreed tube is widely accepted, specifically because of its ability to consolidate without segregation.

The presence of major aggregate at the surface provides the ultimate performance, because of the increased density. This requires some care in the form of maintaining a more shallow pitch in your troweling habits. The ready mix producer has more to do with this than anything. If your aggregate is crushed with sharp fractures or if it is uncommonly bony, you may need to take measures to crowd the large rock away from the surface slightly.

There is a lot of chemistry used in making ready mix products to meet the required strength, while cement content is reduced. You must get a feel for your concrete, to tune in on a method that works for you. Concrete supplies will vary, from one to another, as so their products.

Friction Method

The friction screed has become an alternative to the surface vibrator.

This tool is a spinning tube, manually drawn over the slab. The face of the spinning tube encounters the surface, sweeping the excess concrete forward. This method aggressively cuts the high material into a roll which gathers in front of the tube. This allows operators to grasp the high material and remove it from the surface. This step is so effective, operators use the tube for preliminary placement, as well as striking the final grade.

Step 1: Placement. Delivery begins as workmen have filled the first corner and across the starting edge. Grade is a little high, to assure the area is full. Delivery continues, but the starting area is not completely full on the other side. The workmen are unsure of the exact grade, so they make a quick strike with the tube. This removes the over burden, which is brought forward, then the spinning tube races back out of the way.

The delivery continues with your men and the mixer operator knowing exactly how far your placement currently stands. The delivery happens at a much quicker pace because they can see the placement volume by watching the tube. As high and low spots appear, they are visible and obvious. The rotation of the tube carries itself back to recover any of these flaws that appear.

Step 2: Strike-Off. Once an area has received the proper volume of delivery and the over burden has been removed, the final strike is made. This provides a flat grade, consistent with the formwork, ready for the finish tools.

Timing is most critical. Within two minutes after the material is dropped, you have the initial strike. After that, the body of the slab is in place. The material which moves after that point is a matter of texture.

The Rollerscreed tube gives powerful control of surface grade, during this precious window of time. Don't wait even a few minutes for workmen to walk around in your delivery area, raking this material to grade. Keep a man there push some fill back into the holes which occur. Get the rest of the men out of the way and cut the grade with the tube.

You can maintain a better flatness if you cut grade immediately upon placement.

Using friction to cut grade is very precise and it is also quick. The Rollerscreed tube is not capable of the tremendous width, as that of the vibratory screed. In big areas the tube must be used in multiple rows, using temporary Pinheads. However, the speed, in square feet per hour, is comparative with the speed of wider vibratory screeds.

The aggregate is left undisturbed, at the surface. A thin layer of fines is present, adequate for a smooth finish. The matrix of aggregate is still intact, giving high density and providing stability for finishing machines.

As the Rollerscreed tube bites the surface, the force is directed against the high material. That which exists at proper grade is left undisturbed, except for the shear, applied by the Bottom and face of the tube. As a result, the arrangement of the aggregate is left intact, in its proper matrix.

Formwork and Cold Slabs

Your setup probably includes some of the following:

Cold slabs
Formwork
Temporary

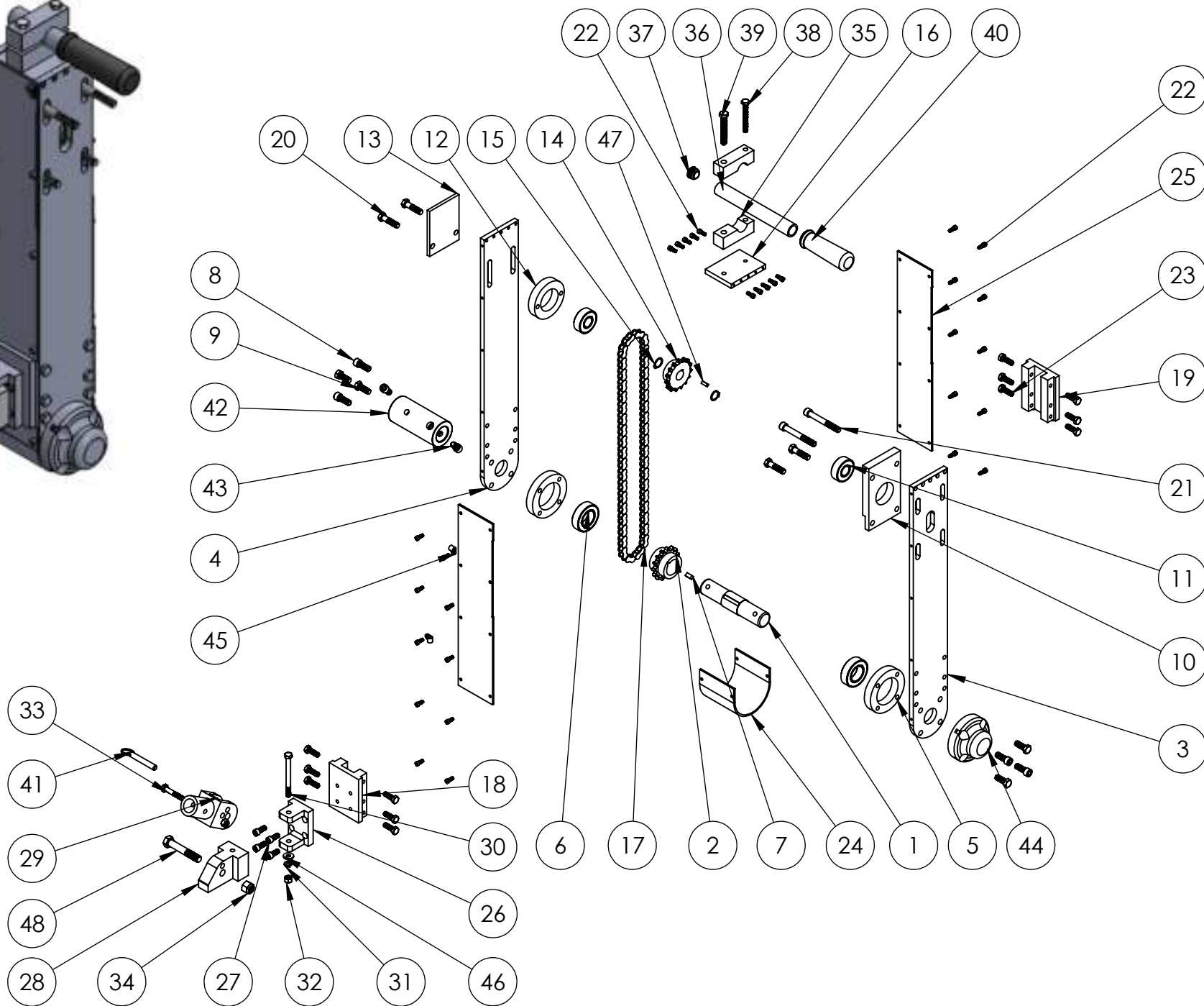
The strike-off is done supported by the setup. Since your setup gives reference for grade,

The final surface tolerance can be only as pure as the setup.

The Rollerscreed tube cuts grade slightly lower than the setup. This is similar to the conditions which occur when using manual strike-off. Then, shrinking occurs in the concrete, during hydration. The final surface will arrive at 3mm (1/8") below the formwork. Formwork should be set artificially high, by 3mm (1/8"). Finishers should be advised to avoid filling the edges to form level, since the desired grade is slightly lower.

Similarly, cold slabs are spaced. With a 3mm (1/8") strip of flat steel, so the final grade will match the cold slab. The strip of flat steel prevents excessive wear to the tube. This wear becomes significant, when the tube extends over a cold slab which has a rough texture.

DB500 - DRIVE BODY ASSEMBLY

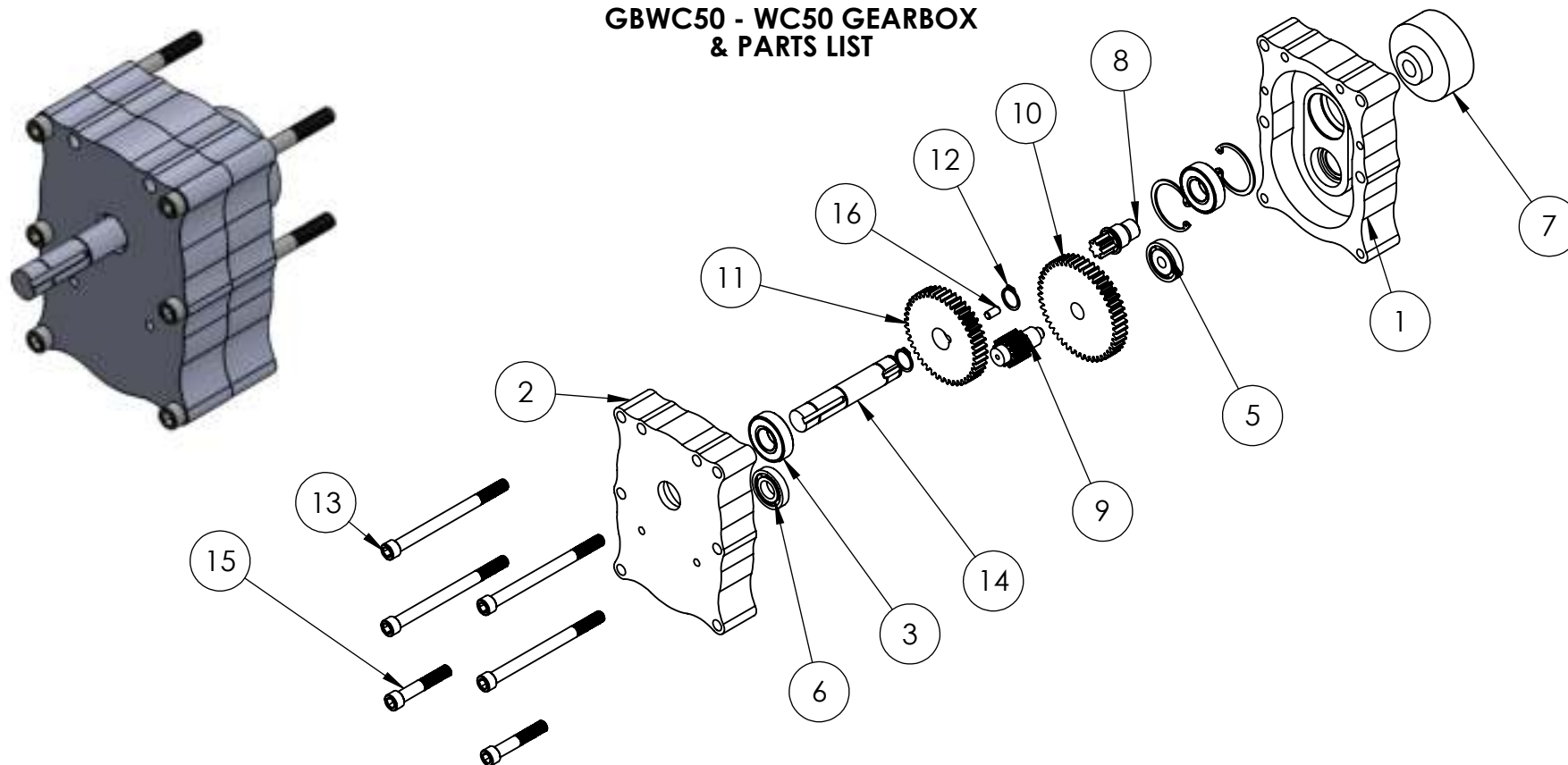


DB500 - DRIVE BODY PARTS LIST



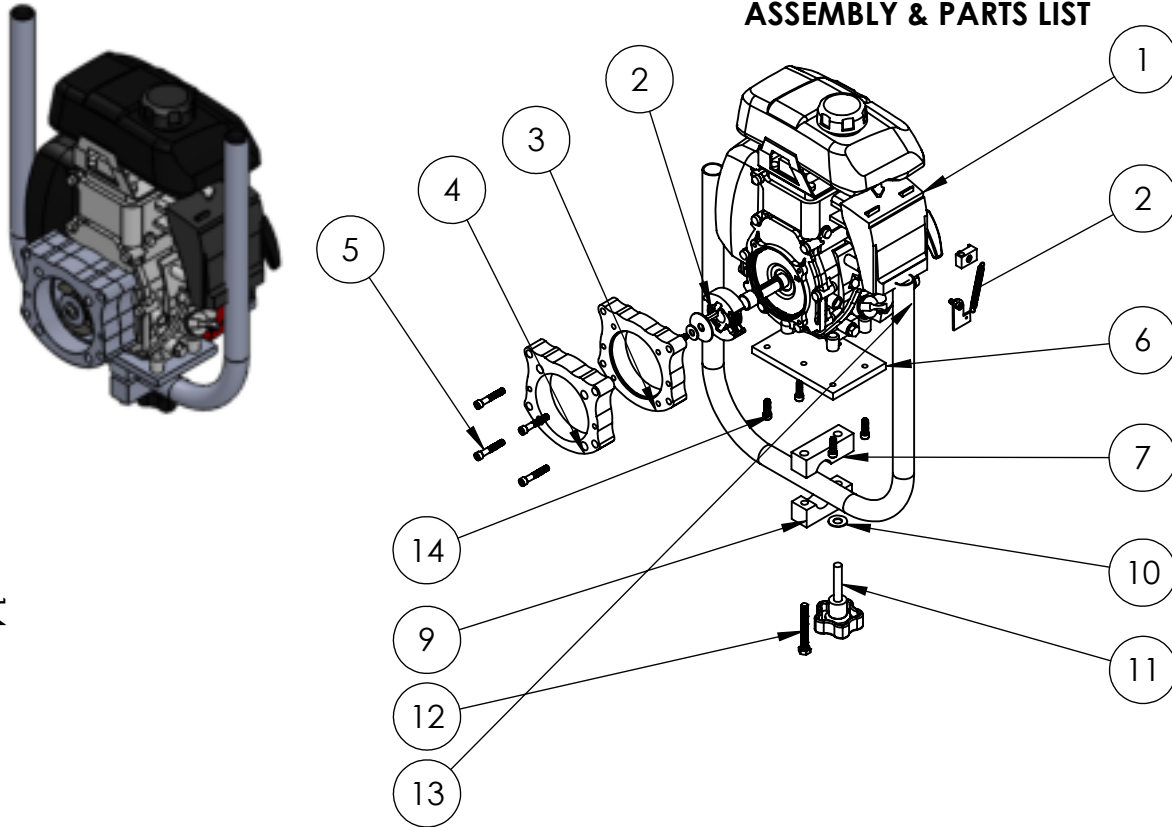
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	D116	1 1/4 X 6" SS OUTPUT SHAFT	1
2	D127	1 1/4" NO40 CHAIN SPROCKET	1
3	DB100	ENGINE SIDE PLATE	1
4	DB120	TUBE SIDE PLATE	1
5	D119	3-1/2" BEARING CARRIER	2
6	D120	1 1/4" OD ROLLER BEARING	2
7	D121	1/4" X 1/2" KEY STOCK	1
8	PR564	3/8-16 X 1" SCHS	4
9	MV83	3/8-16 X 1" HHCS	4
10	D110	GEAR BOX SUPPORT PLATE	1
11	DB270	3/4"ID - 1 4/5" OD ROLLER BEARING	2
12	DB230	BEARING CARRIER	1
13	DB220	BEARING COVER PLATE	1
14	DB250	3/4 BORE #40 CHAIN SPROCKET	1
15	P141	RETAINING RING	2
16	DB160	TOP PLATE	1
17	D115	#40 CHAIN 42" LONG	1
18	DB190	SWIVEL MOUNT PLATE	1
19	D123	SUPPORT PLATE 1" X 4"	1
20	D103	3/8-16 X 1 1/2" HHCS	4
21	MV103	3/8-16 X 3" SHCS	2
22	D100	10-24 X 1/2" SCHS	30
23	D104	5/16-18 X 1" HHCS	12
24	DB140	COVER PLATE	1
25	DB150	INSPECT PLATE	2
26	DB180E	SWIVEL BASE - ELECTRIC	1
27	MV420	5/16-18 X 3/4" SHCS	4
28	SC158E	MALE HANDLE STOP	1
29	SC159E	FEMALE HANDLE STOP	1
30	MV198	5/16-18 X 3 1/2" HHCS	1
31	MV412	5/16 LOCK WASHER	1
32	MV411	5/16-18 LOCKING NUT	2
33	PR211	5/16-18 X 1 3/4" HHCS	1
34	P170	1/2-13 LOCKING HEX NUT	1
35	MV540	TUBING CAP	2
36	DB200	LIFT HANDLE TUBE	1
37	MV314	7/8 CAP PLUG	1
38	MV414	5/16-18 X 2 1/2" HHCS	1
39	D102	3/8-16 X 2 1/2" HHCS	1
40	MV304	LIFT HANDLE GRIP	1
41	MV143	3/8 X 2 1/4" HITCH PIN	1
42	D125-1	2 X 4 1/2" SS OUTPUT DRIVE ADPT	1
43	D124	3/8-16 X 5/8" SCHS	2
44	D118	DRIVE SHAFT COVER CAP	1
45	D106	NYLON CASING CLAMP	2
46	MV415	1/4" FLAT WASHER	1
47	P142	3/16" KEY STOCK	1
48	P160	1/2-16 X 3" HALF-THREAD HHCS	1

GBWC50 - WC50 GEARBOX & PARTS LIST



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	GB1001	INPUT BOX SIDE	1
2	GB1002	OUTPUT BOX SIDE	1
3	GB1000	BALL BEARING R12 1 5/8 " OD X 3/4" ID	2
4	P177	1 5/8" GROOED DIA INT RING	2
5	GB1010	BALL BEARING R10 W 3/8 " BORE SIZE	1
6	GB1011	BALL BEARING R10 W 5/8" BORE SIZE	1
7	GB1031	CLUTCH DRUM 3" ROUND	1
8	GB1020	GEAR 7T PINION THREAD	1
9	GB1024	GEAR 12T PIION LH THREAD	1
10	GB1025	GEAR 48T LH THREAD	1
11	GB1023	GEAR 44T 3/4" HOLE	1
12	P141	RETAINING RING	2
13	MV102	3/8-16 X 5" SHCS	4
14	D114	DRIVE SHAFT	1
15	MV197	3/8 -16 X 2 3/4" SHCS	2
16	MV127	1/4 X 1/5 STEEL DOWEL PIN	1

MV720 & WC50 ENGINE- KICKSTAND ASSEMBLY & PARTS LIST



ITEM NO.	PART NO.	Description	QTY.
1	MV500	GX50 HONDA ENGINE	1
2	WC80	PARTS NOT FURNISHED BY HONDA	
3	GB1050	ENGINE MOUNTING PLATE	1
4	GB1041	ENGINE PLATE TO GEARBOX ADAPTER	1
5	MV199	.25-28 X 1.5IN SCHS	4
6	MV723	WC50 ENGINE KICK STAND PLATE	1
7	MV704	ENGINE STAND CLAMP	1
8	MV722	WC50 KICK STAND	1
9	MV721	KICK STAND CLAMP	1
10	MV179	3/8 FLAT WASHER	1
11	PR206	5/16-16 X PLASTIC KNOB	1
12	MV414	5/16-18 X 2.5IN HHCS	1
13	MV314	7/8" CAP PLUG	2
14	FC20	1.0 X 20 M6 SHCS	4

WC80 -ITEMS NOT FURNISHED BY HONDA



D136 - THROTTLE GUIDE

MV99 - SPRING



D100 - 10-24 X 1/2"



D134 - WC50 SPRING ARM

MV130 - 1/4 - 28 X 1/2" BHSCS



KEYSTOCK

RS50 - WC50 CLUTCH



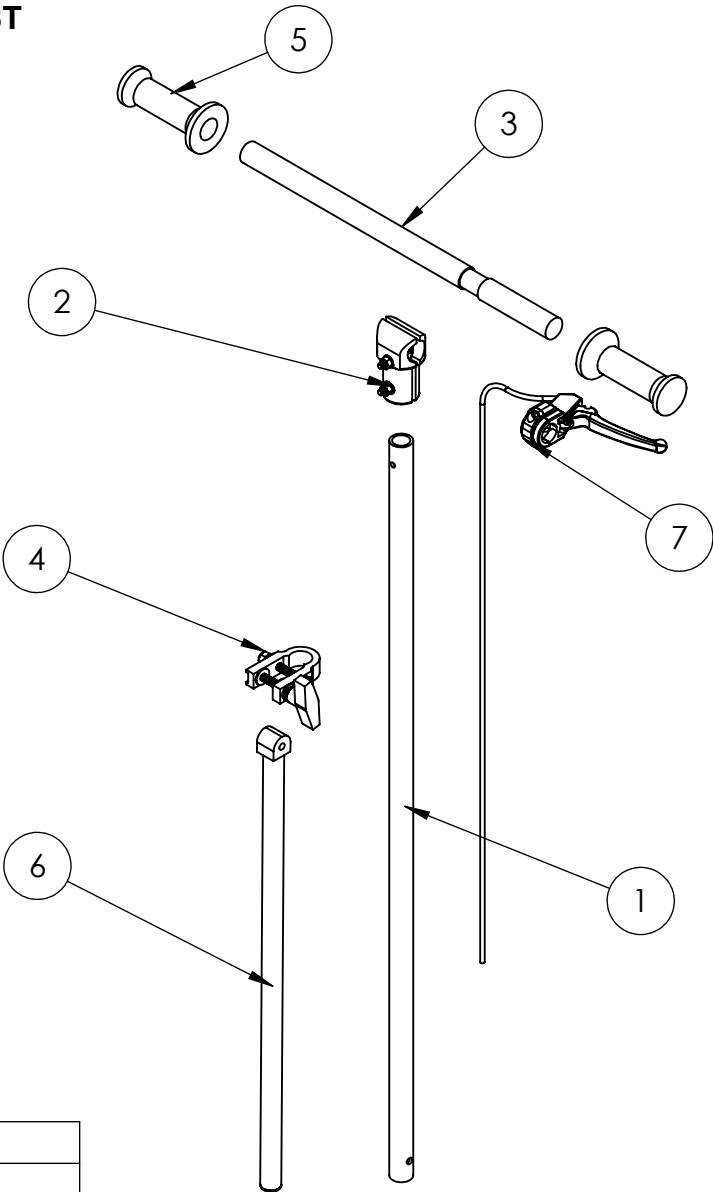
D137 - CLUTCH SPACER

MV415 - 1 1/4 FLAT WASHER



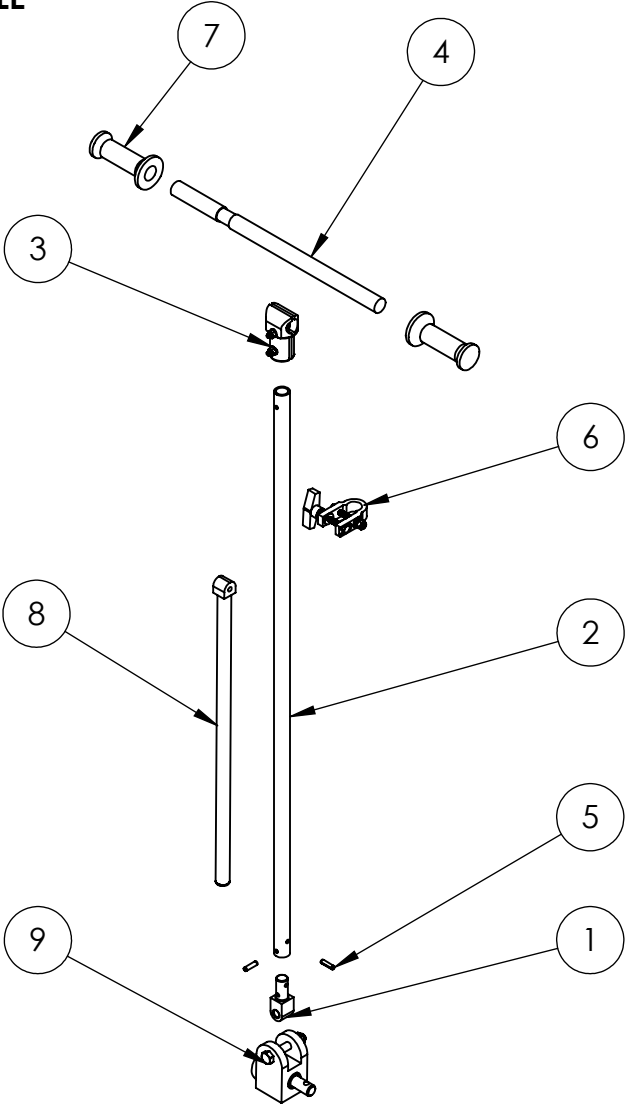
D138 - CLUTCH WASHER

DPH200 - DRIVE END PULL HANDLE
ASSEMBLY & PART LIST



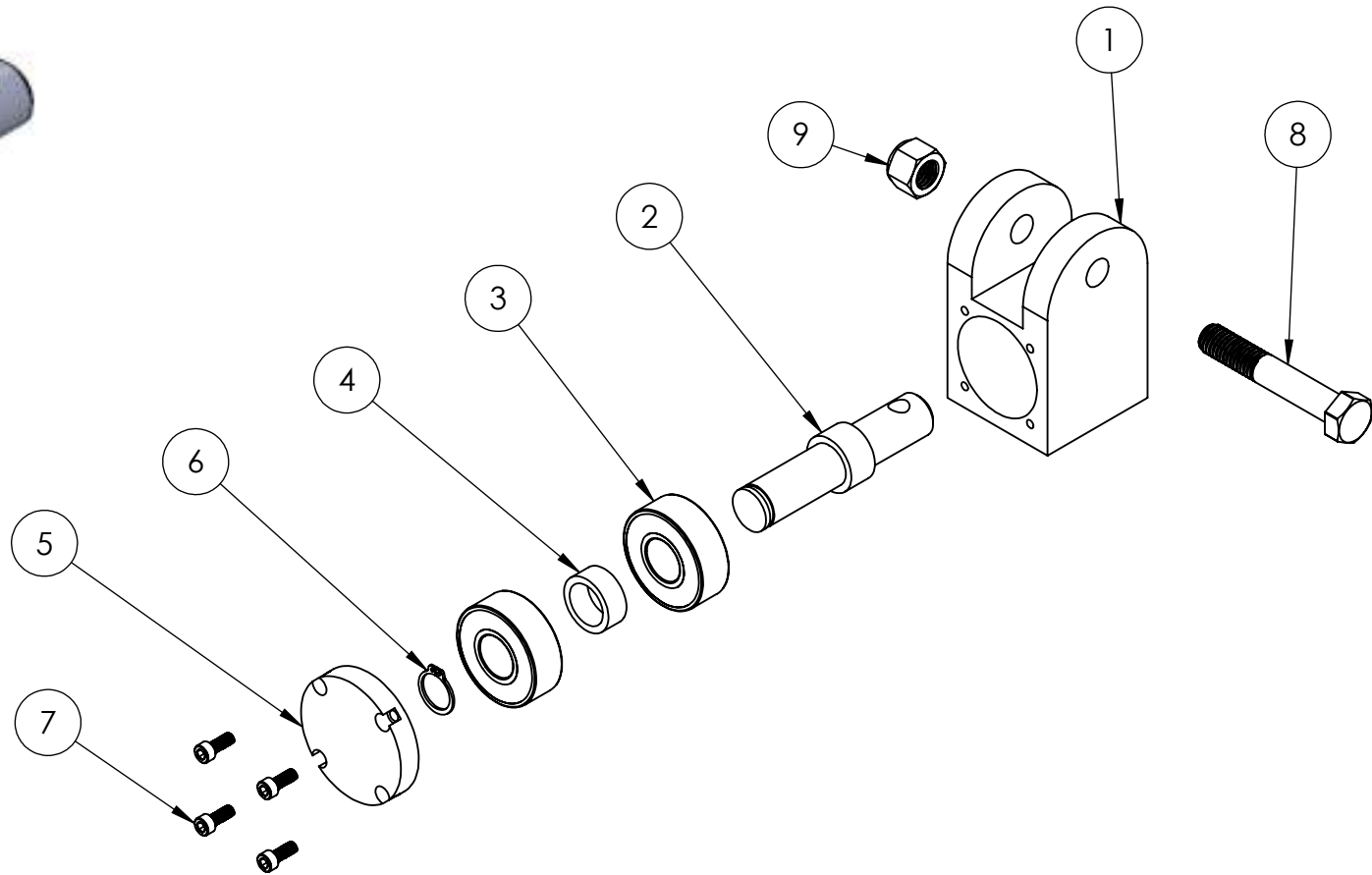
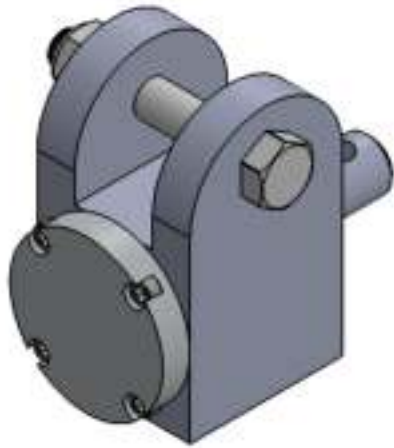
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	DPH100	TUBING - 37 1/2 X 1	1
2	PR610	CROSS BAR CLAMP	1
3	PH100	TUBING - 18X1	1
4	MV410	KICKSTAND CONNECTOR	1
5	PR601	HANDLE GRIP	2
6	MV400	KICKSTAND ASSEMBLY	1
7	DPH150	THROTTLE ASSEMBLY	1

OPH100 - OPPOSITE END PULL HANDLE
ASSEMBLY & PART LIST



ITEM NO.	PART NO.	Description	QTY.
1	OPH125	OPPOSITE END HANDLE BRACKET	1
2	OPH120	TUBING 43 X 1	1
3	PR610	CROSS BAR CLAMP	1
4	PH100	TUBING - 18X1	1
5	OPH126	.25" X 1" SPRING PIN	2
6	MV410	KICKSTAND CONNECTOR	1
7	PR601	HANDLE GRIP	2
8	MV400	KICKSTAND ASSEMBLY	1
9	ORS100	OPPOSITE END ROLLER SWIVEL	1

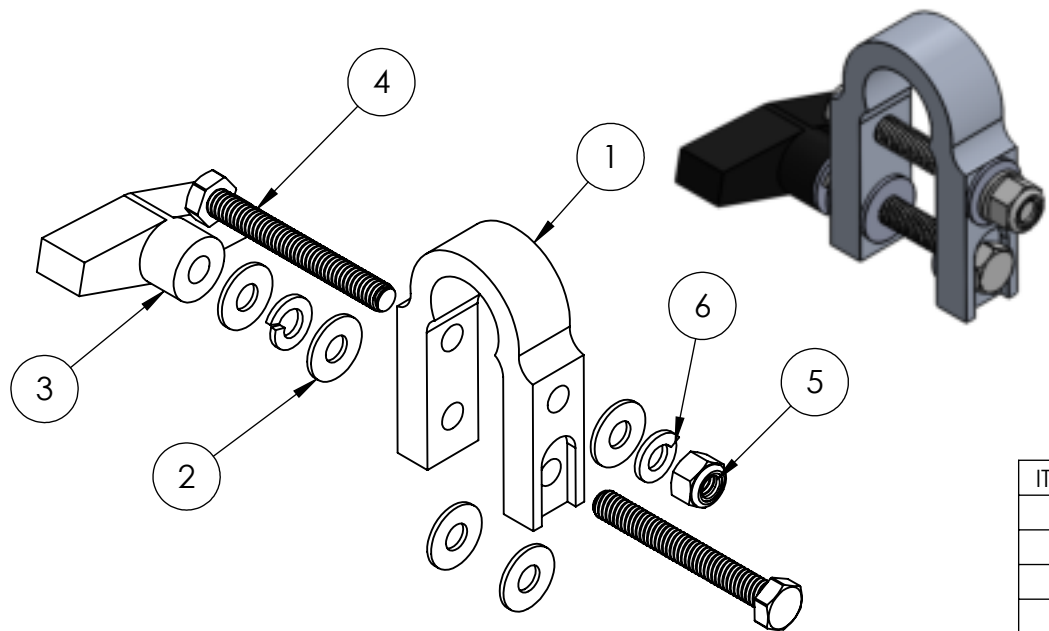
ORS100 - OPPOSITE END ROLLER SWIVEL ASSEMBLY & PART LIST



17

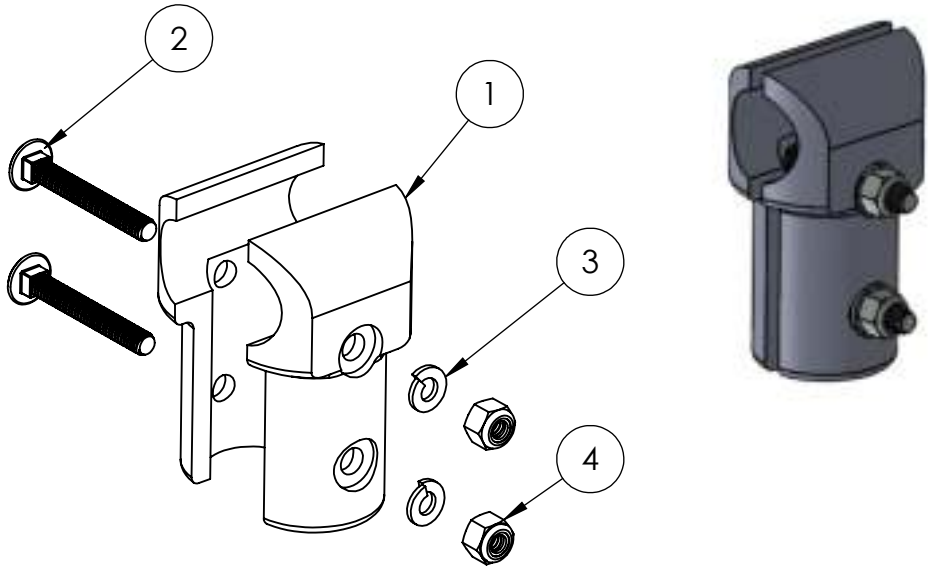
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	SC100	SWIVEL CASE	1
2	SC120	BEARING SHAFT	1
3	DB270	.75 X 1.8 ROLLER BEARING	2
4	SC130	BEARING SPACER	1
5	SC110	END CAP	1
6	P141	RETAINING RING	1
7	D100	10-24 X .50 SCHS	4
8	P160	.5-16 X 3 X 1.5THREAD HHCS	1
9	P170	.5-13 LOCKING HEX NUT	1

MV410 - KICKSTAND CONNECTOR ASSEMBLY & PARTS LIST



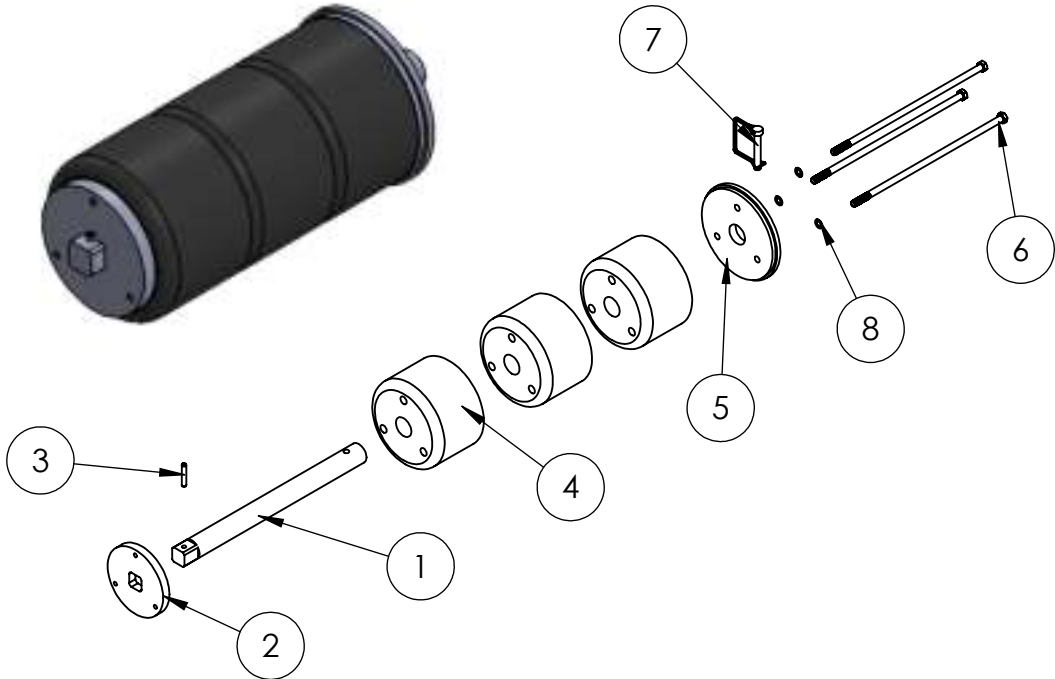
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	MV413	U -CLAMP	1
2	MV415	1/4 FLAT WASHER	5
3	MV416	5/16 X 2 1/2 PLASTIC KNOB	1
4	MV414	5/16 - 18 X 2 1/2 HHCS	2
5	MV411	5/16 - 18 NYLON LOCK NUT	1
6	MV412	5/16 LOCK WASHER	2

PR610 - CROSS BAR CLAMP ASSEMBLY & PARTS LIST



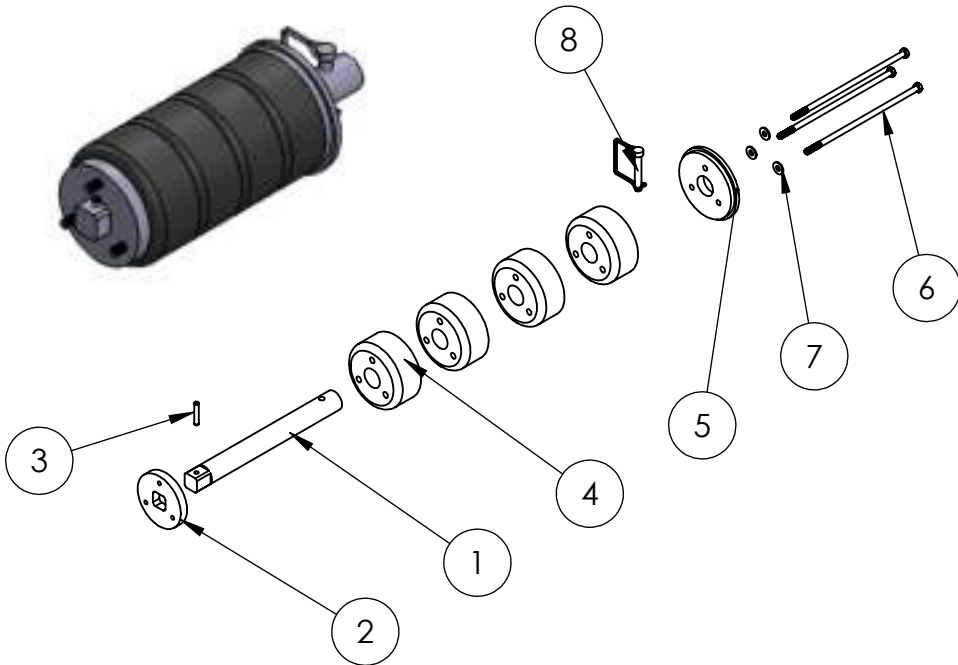
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	PR613	T -CLAMP	1
2	PR616	1/4-20 X 1 3/4 CH BOLT	2
3	PR612	1/4 LOCK WASHER	2
4	PR611	1/4 NYLON LOCK NUT	2

DPSA6 - 6"DRIVE END SELF ALIGN
PLUG & PARTS LIST

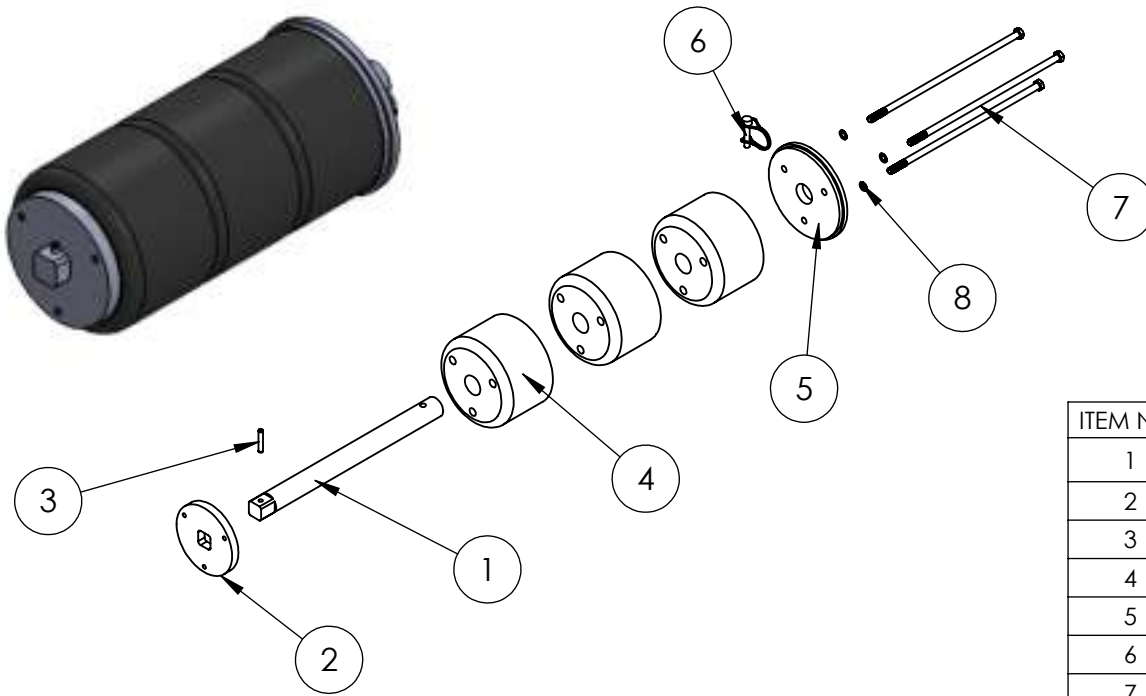


ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	DPS6	DRIVE PLUG SELF ALIGN SHAFT - 6"	1
2	P121-1	PLUG BACK PLATE 6"	1
3	MV139	1/4" X 1-1/2" SPRING PIN	1
4	P131	URETHANE PLUG - 6"	3
5	P111-1	PLUG FACE PLATE 6"	1
6	MV110	3/8-16 X 12" HHCS	3
7	P147	3/8 X 2-1/4 SW DW SNAP PIN	1
8	MV417	5/16 FLAT WASHER	3

DPSA45 - 4.5" DRIVE END SELF ALIGN
PLUG & PARTS LIST

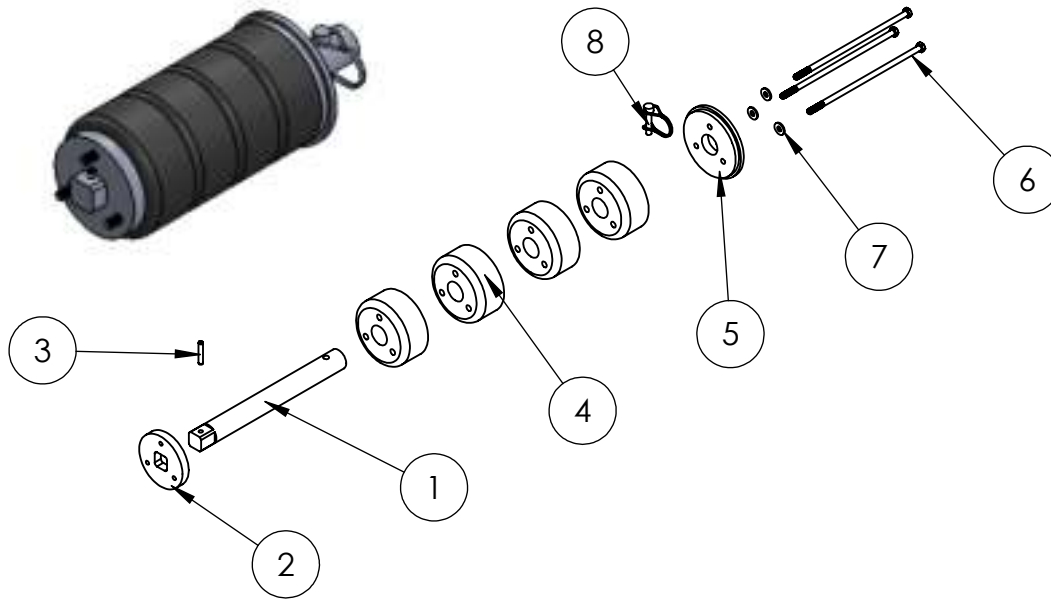


ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	DPS45	DRIVE PLUG SELF ALIGN SHAFT 4.5"	1
2	P121	PLUG BACK PLATE	1
3	MV139	1/4" X 1-1/2" SPRING PIN	1
4	P130	URETHANE PLUG - 4"	4
5	P111	PLUG FACE PLATE	1
6	MV105	5/16-18 X 9" HHCS	3
7	MV415	1/4" FLAT WASHER	3
8	P147	3/8 X 2-1/4 SW DW SNAP PIN	1



OPSA6 - 6" OPPOSITE END SELF SLIGN PLUG & PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	OPS6	OPPOSITE PLUG SHAFT 6"	1
2	P121-1	PLUG BACK PLATE 6"	1
3	MV139	1/4" X 1-1/2" SPRING PIN	1
4	P131	URETHANE PLUG - 6"	3
5	P111-1	PLUG FACE PLATE 6"	1
6	P140	SNAP PIN	1
7	MV110	3/8-16 X 12" HHCS	3
8	MV417	5/16 FLAT WASHER	3



OPSA45 - 4.5" OPPOSITE END SELF ALIGN PLUG & PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	OPS45	OPPOSITE END SELF ALIGN SHAFT 4.5"	1
2	P121	PLUG BACK PLATE	1
3	MV139	1/4" X 1-1/2" SPRING PIN	1
4	P130	URETHANE PLUG - 4"	4
5	P111	PLUG FACE PLATE	1
6	MV105	5/16-18 X 9" HHCS	3
7	MV415	1/4" FLAT WASHER	3
8	P140	SNAP PIN	1