



**Vestil Manufacturing Corp.**

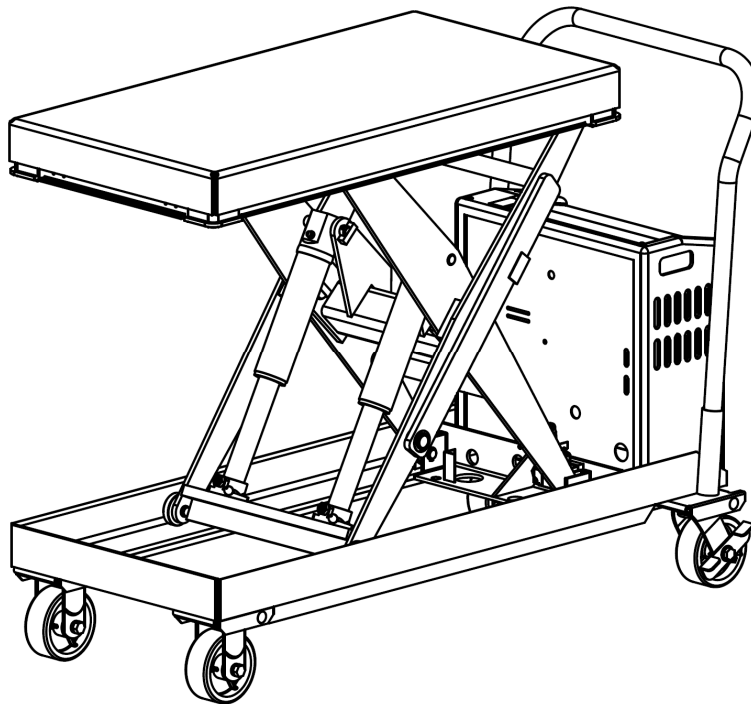
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**CART-DC Scissor Carts with Battery-Powered Tabletop  
Operation and Maintenance Manual**



**Receiving instructions:**

After delivery, IMMEDIATELY remove the packaging from the product in a manner that preserves the packaging; then inspect the product closely to determine whether it sustained damage during transport. **If damage is discovered during the inspection, immediately record a complete description of the damage on the bill of lading.** If the product is undamaged, discard the packaging.

**NOTE:**

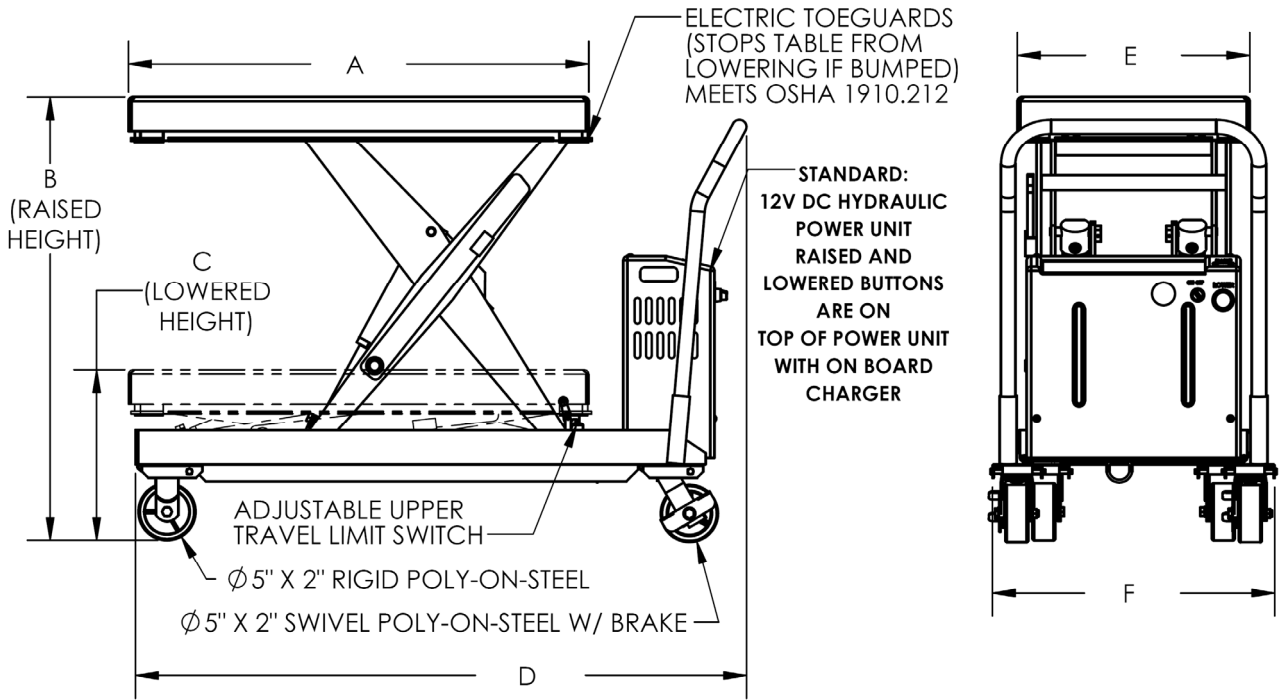
Responsibility for complying with laws, regulations, codes, and non-voluntary standards enforced in the location where the product is used lies exclusively with the end-user.

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**Specifications:**

Dimensions for various cart configurations as well as net weight and capacity information appear in the following diagrams and table.



Model	A	B	C	D	E	F	Capacity	Net weight
CART-500-2033-DC	33 <sup>3</sup> / <sub>8</sub> "	35"	13"	46 <sup>9</sup> / <sub>16</sub> "	20 <sup>3</sup> / <sub>8</sub> "	25"	500 lb. 227.3 kg	291 lb. 132.1 kg
CARTD-750-2040-DC	40 <sup>3</sup> / <sub>8</sub> "	42"	14"	53 <sup>9</sup> / <sub>16</sub> "	20 <sup>3</sup> / <sub>8</sub> "	24 <sup>3</sup> / <sub>4</sub> "	750 lb. 340.9 kg	327 lb. 148.6kg
CARTD-1000-2033-DC	33 <sup>3</sup> / <sub>8</sub> "	40 <sup>11</sup> / <sub>16</sub> "	14"	46 <sup>9</sup> / <sub>16</sub> "	20 <sup>3</sup> / <sub>8</sub> "	24 <sup>3</sup> / <sub>4</sub> "	1,000 lb. 454.5 kg	315 lb. 143.4 kg
CART-1000-2040-DC	40"	39"	15"	53 <sup>9</sup> / <sub>16</sub> "	20 <sup>3</sup> / <sub>8</sub> "	25 <sup>3</sup> / <sub>16</sub> "	1,000 lb. 454.5 kg	328 lb. 149.3 kg
CART-2000-2040-DC	40"	39"	15"	53 <sup>9</sup> / <sub>16</sub> "	20 <sup>3</sup> / <sub>8</sub> "	22 <sup>7</sup> / <sub>8</sub> "	2,000 lb. 909.1 kg	341 lb. 155.3 kg
CART-2000-3240-DC	40 <sup>3</sup> / <sub>8</sub> "	39"	15"	52 <sup>1</sup> / <sub>2</sub> "	32 <sup>3</sup> / <sub>8</sub> "	32 <sup>1</sup> / <sub>2</sub> "	2,000lb. 909.1 kg	410 lb. 186.5 kg
CART-2000-4242-DC	42 <sup>3</sup> / <sub>8</sub> "	39"	15"	52 <sup>1</sup> / <sub>2</sub> "	42 <sup>3</sup> / <sub>8</sub> "	32 <sup>1</sup> / <sub>2</sub> "	2,000 lb. 909.1 kg	432 lb. 196.4 kg
CART-2500-2040-DC	40 <sup>3</sup> / <sub>8</sub> "	38"	15"	54 <sup>3</sup> / <sub>16</sub> "	20 <sup>3</sup> / <sub>8</sub> "	24 <sup>3</sup> / <sub>4</sub> "	2,500 lb. 1136.4 kg	362 lb. 164.7 kg

## SIGNAL WORDS

This manual uses SIGNAL WORDS to indicate the likelihood of personal injuries, as well as the probable seriousness of those injuries, if the product is misused in the ways described. Other signal words call attention to uses of the product likely cause property damage. The signal words used appear below along with the meaning of each word:



Identifies a hazardous situation which, if not avoided, WILL result in DEATH or SERIOUS INJURY. Use of this signal word is limited to the most extreme situations.



Identifies a hazardous situation which, if not avoided, COULD result in DEATH or SERIOUS INJURY.



Indicates a hazardous situation which, if not avoided, COULD result in MINOR or MODERATE injury.



Identifies practices likely to result in product/property damage, such as operation that might damage the product.

## Hazards of Improper Use:

We strive to identify foreseeable hazards associated with the use of our products. However, material handling is dangerous and no manual can address every risk. Exercise sound judgment whenever using the cart.



Improper or careless operation might result in serious personal injuries sustained by the operator and bystanders. Always apply material handling techniques learned during training and use the product properly:

- ***Failure to read and understand the entire manual before assembling, using or servicing the product constitutes misuse.*** Read the manual to refresh your understanding of proper use and maintenance procedures as necessary.
- DO NOT attempt to lift a load that weighs more than the capacity of your cart. The capacity appears on label 287 as shown in “Labeling diagram” on p. 13. (Also see “Specifications” on p. 2.)
- DO NOT allow people to stand or sit on either the cart or the load.
- Stand clear of the cart while raising or lowering the tabletop.
- Keep clear of pinch points while the deck rises and lowers.
- DO NOT reach through the legs or crawl under the tabletop unless it is supported by maintenance props.
- DO NOT use the cart in corrosive environments.
- ONLY use the cart on compacted, improved surfaces capable of supporting the combined weight of the cart plus a maximum rated load.
- DO NOT perform maintenance on this cart UNLESS it is unloaded and maintenance props are in place. If repairs are necessary, ONLY install manufacturer-approved replacement parts.
- Center and evenly distribute loads on the tabletop. Secure loads to the tabletop if they are likely to roll or slide.
- DO NOT use the cart unless it is in normal operating condition. Inspect the unit before each use according to the inspection instructions on p. 12-13 to determine whether the unit is functioning normally. DO NOT use the cart unless it passes every part of the inspection or until it is restored to normal operating condition.
- ALWAYS observe the cart while raising and lowering the tabletop. It should rise smoothly and evenly from side-to-side. Watch for binding or jerky movement and listen for unusual noises. Tag the unit "Out of order" and do not use it if you observe anything abnormal.
- Always watch the load carefully while raising and lowering the tabletop.
- DO NOT continue to press the UP button if the tabletop is fully elevated (does not continue to rise).
- Before leaving the cart unattended, unload it and relieve hydraulic pressure by pressing the DOWN button and holding it until the tabletop is fully lowered.
- DO NOT use the cart UNLESS all labels are in place and readable (see “Labeling diagram” on p. 13).
- DO NOT modify this product in any way. Modifications automatically void the limited warranty and might make the cart unsafe to use.



Proper use and maintenance are essential for this product to function properly.

- Periodically lubricate moving parts.
- Batteries should be kept at full charge when the cart is stored for prolonged periods. Maintain battery charge by plugging in the charger. If the cart will be out of use for longer than 3 months, remove the batteries and store them in a cool, dry location.
- Keep the product clean & dry. Do not store this cart where it is exposed to the elements.
- Only use approved replacement parts. To order replacement or spare parts for this equipment, contact the technical service department.

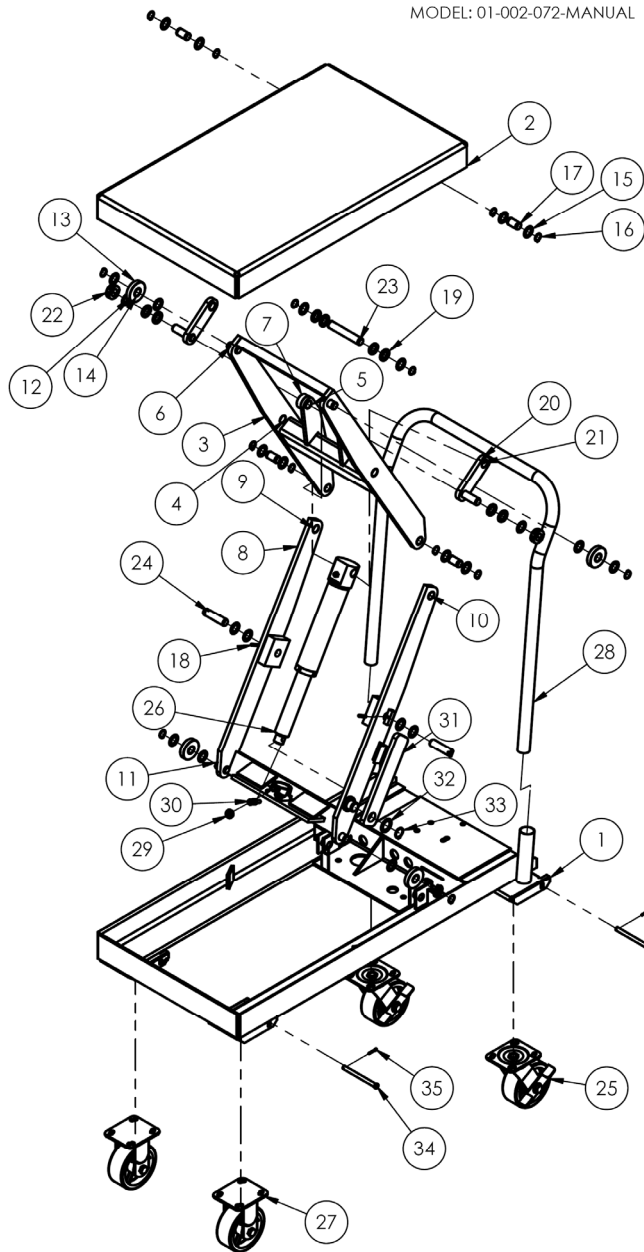
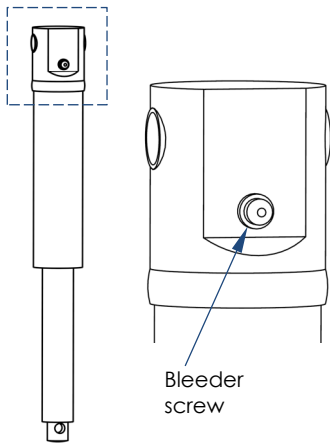
# CART-500-2033-DC, CART-500-2033-FP Exploded View

MODEL: 01-002-072-MANUAL

**NOTES:**

- 1) Suffix -FP: models use a manual foot pump to raise and lower the tabletop. See Autoshifter manual.
- 2) Suffix -DC: an electric-hydraulic modular power unit controls the tabletop. See MPU-DC manual.

Detail view of top of cylinder (26)



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	01-514-095	WELDMENT, FRAME, CART	1
2	01-513-007	WELDMENT, DECK 20" X 33"	1
3	01-510-016	WELDMENT, LEG, INNER	1
4	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	2
5	01-111-007	BUSHING, POLYGON 3/4 ID X 1 LG	2
6	01-112-007	PIN, ROLLER	2
7	01-020-014	BOSS	2
8	01-510-017	WELDMENT, LEG, OUTER	1
9	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	1
10	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	1
11	01-112-007	PIN, ROLLER	2
12	01-527-002	ROLLER, ASSY Ø2 1/4" X 1/2" W	4
13	01-027-002	ROLLER, Ø2 1/4" X 1/2"	1
14	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	1
15	01-113-001	SPACER/SHIM (MCH BUSHING)	24
16	38-117-001	RETAINER RING, EXTERNAL FOR Ø3/4 SHAFT	14
17	01-112-009	PIN, HINGE PIVOT	4

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
18	64134	SPRING PIN	2
19	33426	MACHINED BUSHING, LOW CARBON STEEL, PLAIN FINISH, Ø3/4"	8
20	01-511-002	WELDMENT, CYLINDER SWIVEL BRACKET	2
21	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	1
22	34308	SPLIT SHAFT COLLAR, LOW CARBON STEEL, BLACK OXIDE FINISH, Ø3/4"	2
23	01-112-017	PIN, HINGE PIVOT	1
24	01-112-013	PIN, AXLE	2
25	16-132-053	PU-5/2-S-SWB, SWIVEL CASTER W/BRAKE	2
26	99-021-915-001	CYLINDER, HYDRAULIC, Ø1 1/2" x 7", RAM STYLE	1
27	16-132-022	PU-5/2-R, RIGID CASTER	2
28	99-025-014	HANDLE, PUSH, 22" C/C	1
29	36209	1/2 - 13 HEX JAM NUT PLAIN	1
30	01-118-002	BOLT, CYLINDER RETAINING	1
31	01-037-009	MAIN PROP, CART	1
32	33444	MACHINE BUSHING, Ø 1 X 18 GA.	1
33	20-117-003	EXTERNAL RETAINING RING, 1" DIA SHAFT	1
34	99-112-006	PIN, CLEVIS	4
35	65076	Ø1/8" X 1" COTTER PIN, Z-PLATED	4

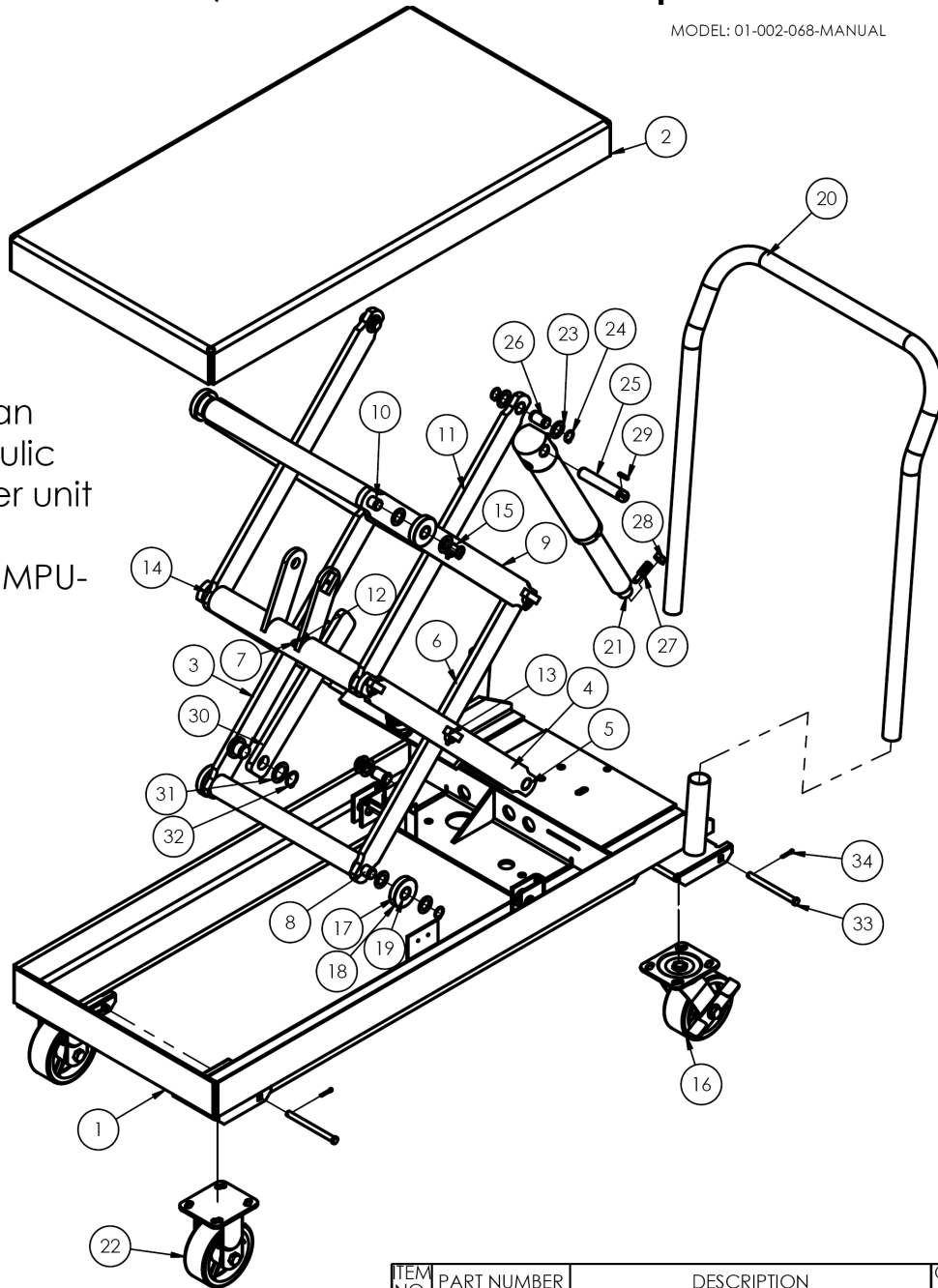
# CARTD-750-2040-FP, CARTD-750-2040-DC Exploded View

MODEL: 01-002-068-MANUAL

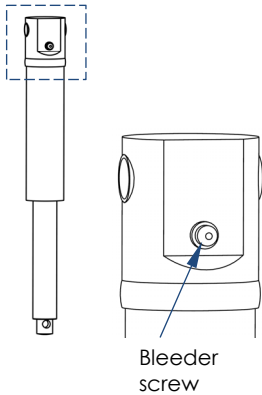
**NOTES:**

1) Suffix –FP:  
models use a manual foot pump to raise and lower the tabletop. See Autoshifter manual.

2) Suffix –DC: an electric-hydraulic modular power unit controls the tabletop. See MPU-DC manual.



Detail view of top of cylinder (21)



Bleeder screw

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	01-514-092	WELDMENT, FRAME	1
2	01-513-005	WELDMENT, DECK	1
3	01-510-005	WELDMENT, LEG, DOUBLE SCISSOR	1
4	01-510-008	WELDMENT, LOWER OUTER LEG ASSY	1
5	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	2
6	01-510-009	WELDMENT, LOWER INNER LEG	1
7	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	4
8	01-112-007	PIN, ROLLER	2
9	01-510-010	WELDMENT, UPPER OUTER LEG	1
10	01-112-007	PIN, ROLLER	2
11	01-510-011	WELDMENT, UPPER INNER LEG	1
12	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	6
13	01-112-012	PIN, AXLE	4
14	01-113-001	SPACER/SHIM (MCH BUSHING)	16
15	64134	SPRING PIN	6
16	16-132-053	PU-5/2-S-SWB, SWIVEL CASTER W/BRAKE	2
17	01-527-002	ROLLER, ASSY Ø2 1/4" X 1/2" W	4

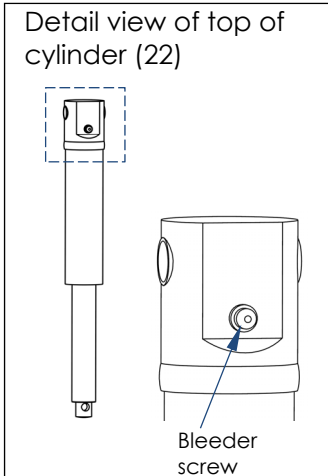
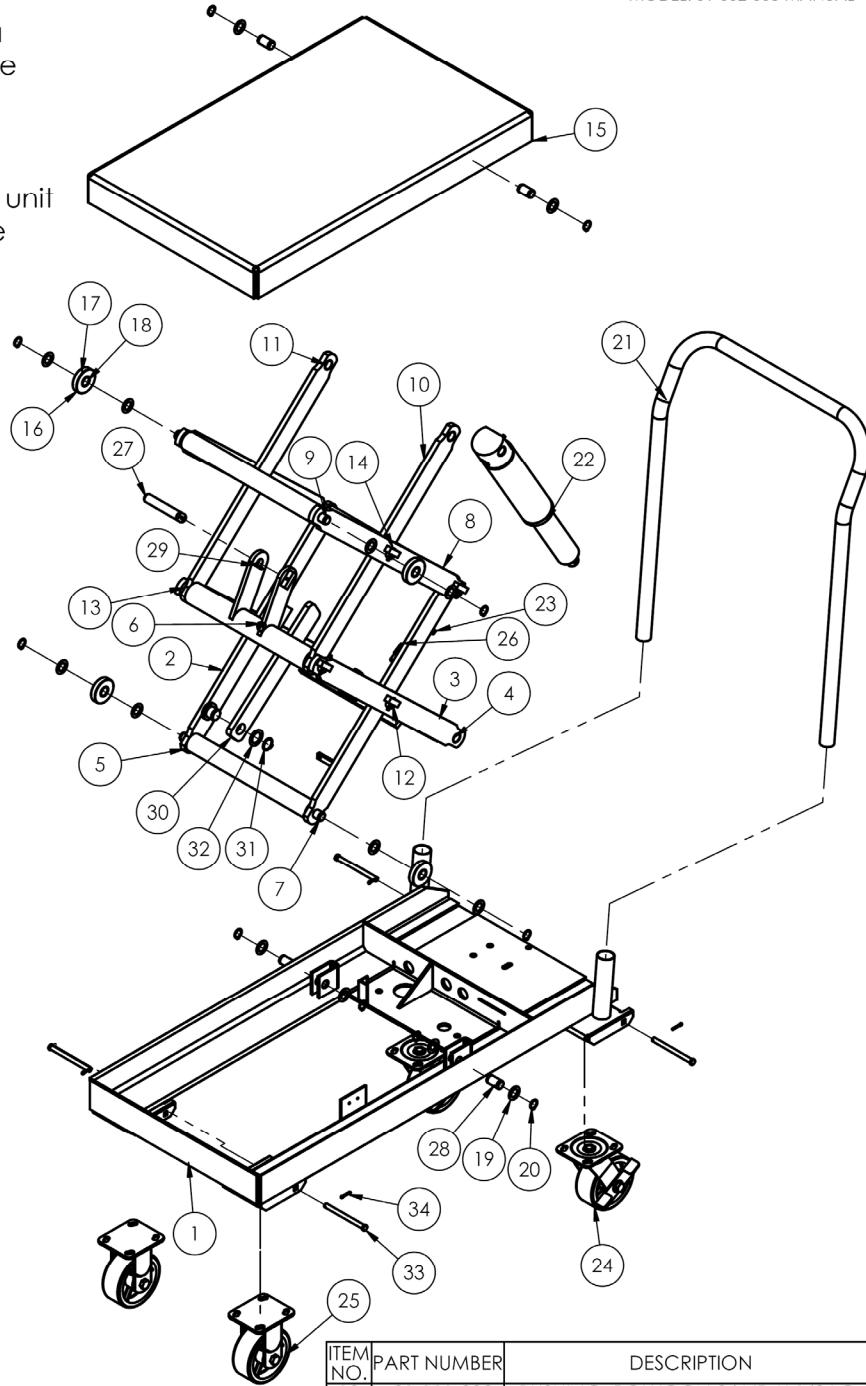
ITEM NO.	PART NUMBER	DESCRIPTION	QTY
18	01-027-002	ROLLER, Ø2 1/4" X 1/2"	1
19	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	1
20	99-025-014	HANDLE, PUSH, 22" C/C	1
21	99-021-915-001	CYLINDER, HYDRAULIC, Ø1 1/2" x 7", RAM STYLE	1
22	16-132-022	PU-5/2-R, RIGID CASTER	2
23	01-113-001	SPACER/SHIM (MCH BUSHING)	16
24	38-117-001	RETAINER RING, EXTERNAL FOR Ø3/4 SHAFT	12
25	01-112-010	PIN, CYLINDER PIVOT	1
26	01-112-009	PIN, HINGE PIVOT	4
27	01-118-002	BOLT, CYLINDER RETAINING	1
28	36209	1/2 - 13 HEX JAM NUT PLAIN	1
29	64134	SPRING PIN	1
30	01-037-011	MAINPROP, CART	1
31	33444	MACHINE BUSHING, Ø 1 X 18 GA.	1
32	20-117-003	EXTERNAL RETAINING RING, 1" DIA SHAFT	1
33	99-112-006	PIN, CLEVIS	4
34	65076	Ø1/8" X 1" COTTER PIN, Z-PLATED	4

# CARTD-1000-2033-DC; CARTD-1000-2033-FP Exploded View

MODEL: 01-002-008-MANUAL

**NOTES:**

- 1) Suffix -FP: models use a manual foot pump to raise and lower tabletop. See Autoshifter manual.
- 2) Suffix -DC: an electric-hydraulic modular power unit controls the tabletop. See MPU-DC manual.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	01-514-096	WELDMENT, FRAME	1
2	01-510-005	WELDMENT, LEG, DOUBLE SCISSOR	1
3	01-510-008	WELDMENT, LOWER OUTER LEG ASSY	1
4	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	2
5	01-510-009	WELDMENT, LOWER INNER LEG	1
6	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	4
7	01-112-007	PIN, ROLLER	2
8	01-510-010	WELDMENT, UPPER OUTER LEG	1
9	01-112-007	PIN, ROLLER	2
10	01-510-011	WELDMENT, UPPER INNER LEG	1
11	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	6
12	01-112-012	PIN, AXLE	4
13	01-113-001	SPACER/SHIM (MCH BUSHING)	16
14	64134	SPRING PIN	6
15	01-513-008	WELDMENT, DECK 20 X 33	1
16	01-527-002	ROLLER, ASSY Ø2 1/4" X 1/2" W	4
17	01-027-002	ROLLER, Ø2 1/4" X 1/2"	1

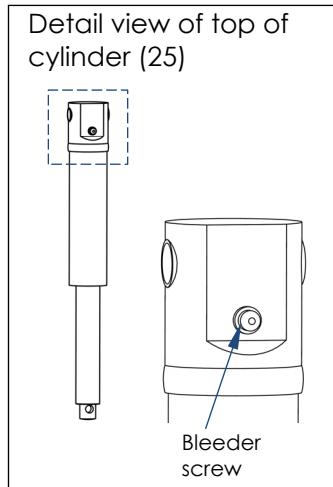
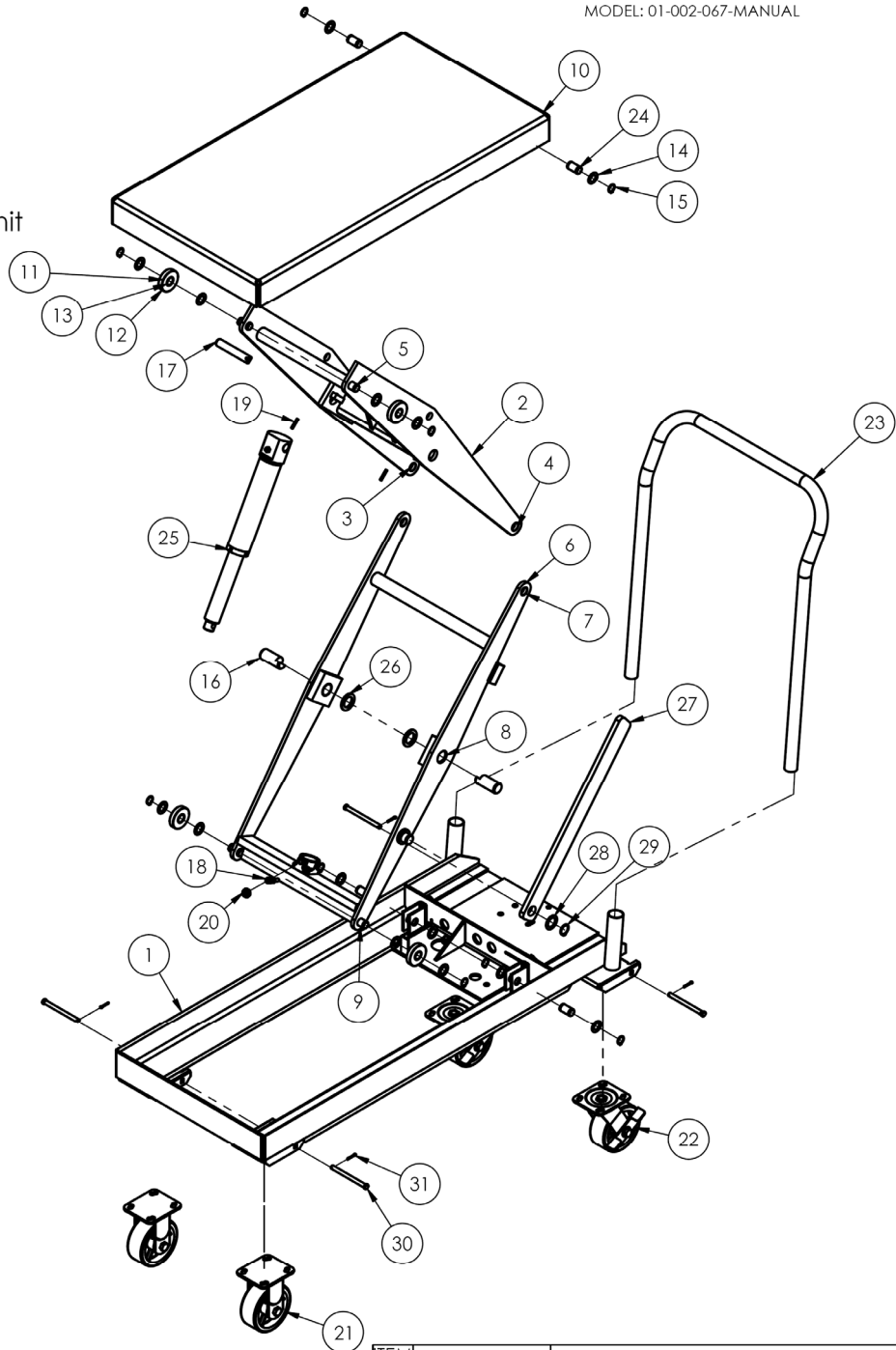
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
18	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	1
19	01-113-001	SPACER/SHIM (MCH BUSHING)	16
20	38-117-001	RETAINER RING, EXTERNAL FOR Ø3/4 SHAFT	12
21	99-025-014	HANDLE, PUSH, 22" C/C	1
22	99-021-950	CYLINDER, HYDRAULIC, Ø2" x 7", RAM STYLE	1
23	36209	1/2 - 13 HEX JAM NUT PLAIN	1
24	16-132-053	PU-5/2-S-SWB, SWIVEL CASTER W/BRAKE	2
25	16-132-022	PU-5/2-R, RIGID CASTER	2
26	01-118-002	BOLT, CYLINDER RETAINING	1
27	01-112-010	PIN, CYLINDER PIVOT	1
28	01-112-009	PIN, HINGE PIVOT	4
29	64134	SPRING PIN	1
30	01-037-011	MAINPROP_CART	1
31	20-117-003	EXTERNAL RETAINING RING, 1" DIA SHAFT	1
32	33444	MACHINE BUSHING, Ø1 X 18 GA.	1
33	99-112-006	PIN, CLEVIS	4
34	65076	Ø1/8" X 1" COTTER PIN, Z-PLATED	4

# CART-1000-2040-FP, CART-1000-2040-DC Exploded View

MODEL: 01-002-067-MANUAL

**NOTES:**

- 1) Suffix -FP: models use manual foot pump to raise and lower tabletop. See Autosifter manual.
- 2) Suffix -DC: an electric hydraulic modular power unit controls the tabletop. See MPU-DC manual.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	01-514-003	WELDMENT, FRAME	1
2	01-510-048	WELDMENT, LEG, INNER	1
3	01-111-004	BUSHING, POLYGON 3/4 ID X 3/8 LG	1
4	01-111-004	BUSHING, POLYGON 3/4 ID X 3/8 LG	1
5	01-112-007	PIN, ROLLER	2
6	01-510-049	WELDMENT, LEG, OUTER	1
7	01-111-004	BUSHING, POLYGON 3/4 ID X 3/8 LG	1
8	01-111-005	BUSHING, POLYGON 1 1/8 ID X 1 LG	1
9	01-112-007	PIN, ROLLER	2
10	01-513-003	WELDMENT, DECK, 20" X 40"	1
11	01-527-002	ROLLER, ASSY Ø2 1/4" X 1/2" W	4
12	01-027-002	ROLLER, Ø2 1/4" X 1/2"	1
13	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	1
14	01-113-001	SPACER/SHIM (MCH BUSHING)	16
15	38-117-001	RETAINER RING, EXTERNAL FOR Ø3/4 SHAFT	12
16	01-112-008	PIN, SCISSOR PIVOT	2

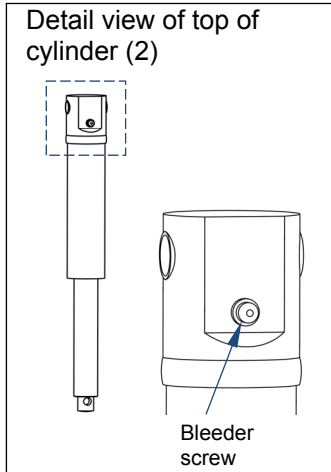
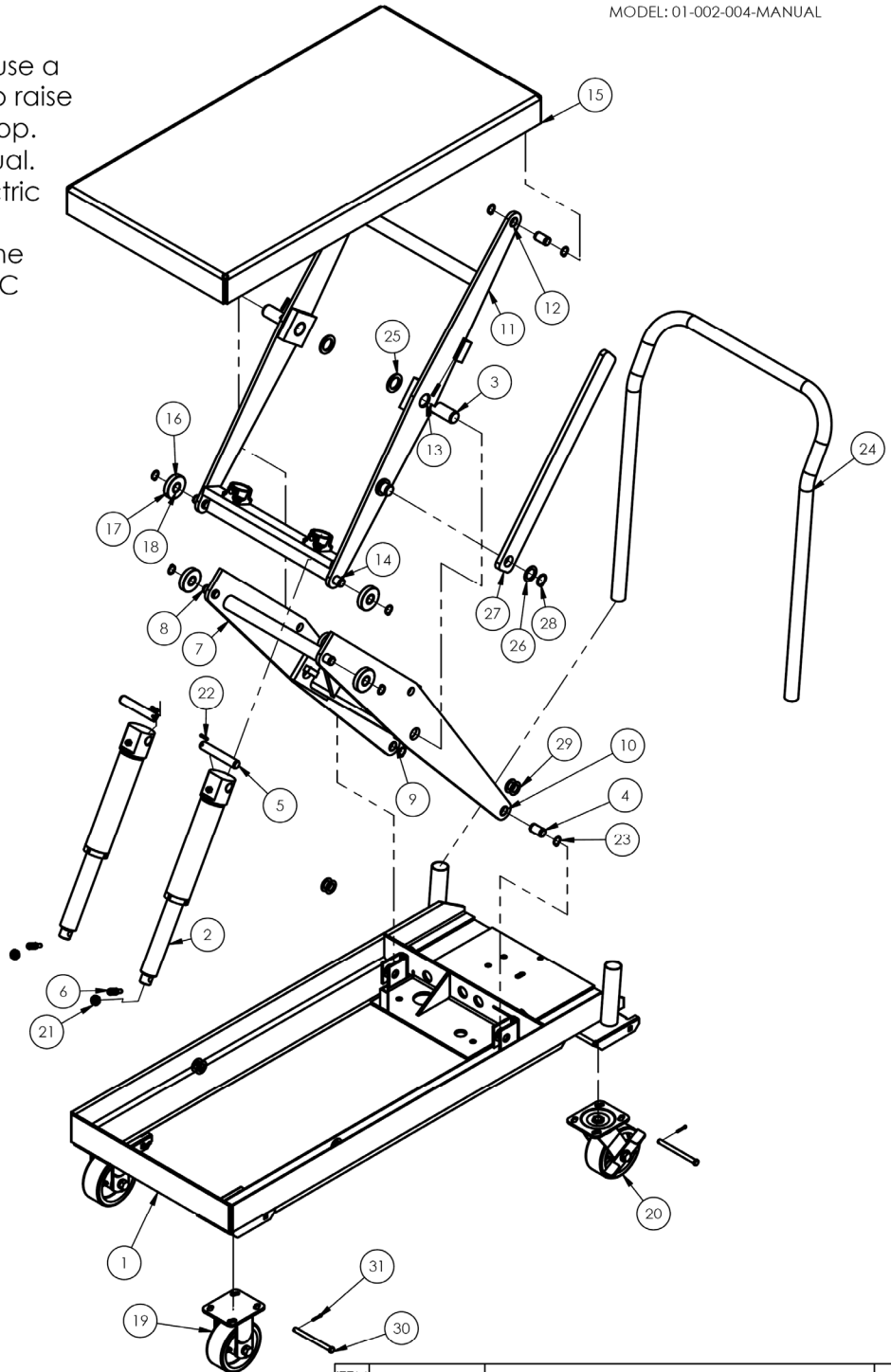
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
17	01-112-010	PIN, CYLINDER PIVOT	1
18	01-118-002	BOLT, CYLINDER RETAINING	1
19	64134	SPRING PIN	3
20	36209	1/2 - 13 HEX JAM NUT PLAIN	1
21	16-132-022	PU-5/2-R, RIGID CASTER	2
22	16-132-053	PU-5/2-S-SWB, SWIVEL CASTER W/BRAKE	2
23	99-025-014	HANDLE, PUSH, 22" C/C	1
24	01-112-009	PIN, HINGE PIVOT	4
25	99-021-915-001	CYLINDER, HYDRAULIC, Ø1 1/2" X 7", RAM STYLE	1
26	33456	MACHINERY BUSHING, PLAIN FINISH, Ø1 1/8" X 10 GA	2
27	24-037-001	MAIN PROP, EHLT	1
28	33444	MACHINE BUSHING, Ø 1 X 18 GA.	1
29	20-117-003	EXTERNAL RETAINING RING, 1" DIA SHAFT	1
30	99-112-006	PIN, CLEVIS	4
31	65076	Ø1/8" X 1" COTTER PIN, Z-PLATED	4

# CART-2000-2040-DC, CART-2000-2040-FP Exploded View

MODEL: 01-002-004-MANUAL

**NOTES:**

- 1) Suffix –FP: models use a manual foot pump to raise and lower the tabletop. See Autosifter manual.
- 2) Suffix –DC: an electric hydraulic modular power unit controls the tabletop. See MPU-DC manual.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	01-514-003	WELDMENT, FRAME	1
2	99-021-915-001	CYLINDER, HYDRAULIC, Ø1 1/2" x 7", RAM STYLE	2
3	01-112-008	PIN, SCISSOR PIVOT	2
4	01-112-009	PIN, HINGE PIVOT	4
5	01-112-010	PIN, CYLINDER PIVOT	2
6	01-118-002	BOLT, CYLINDER RETAINING	2
7	01-510-006	WELDMENT, LEG SCISSOR, INNER	1
8	01-112-007	PIN, ROLLER	2
9	01-111-004	BUSHING, POLYGON 3/4 ID X 3/8 LG	1
10	01-111-004	BUSHING, POLYGON 3/4 ID X 3/8 LG	1
11	01-510-007	WELDMENT, LEG, SCISSOR, OUTER	1
12	01-111-004	BUSHING, POLYGON 3/4 ID X 3/8 LG	1
13	01-111-005	BUSHING, POLYGON 1 1/8 ID X 1 LG	1
14	01-112-007	PIN, ROLLER	2
15	01-513-003	WELDMENT, DECK, 20" X 40"	1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
16	01-527-002	ROLLER, ASSY Ø2 1/4" X 1/2" W	4
17	01-027-002	ROLLER, Ø2 1/4" X 1/2"	1
18	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	1
19	16-132-022	PU-5/2-R, RIGID CASTER	2
20	16-132-053	PU-5/2-S-SWB, SWIVEL CASTER W/BRAKE	2
21	36209	1/2 - 13 HEX JAM NUT PLAIN	2
22	64134	SPRING PIN	4
23	38-117-001	RETAINER RING, EXTERNAL FOR Ø3/4 SHAFT	12
24	99-025-014	HANDLE, PUSH, 22" C/C	1
25	33456	MACHINERY BUSHING, PLAIN FINISH, Ø1 1/8" X 10 GA	2
26	33444	MACHINE BUSHING, Ø 1 X 18 GA.	1
27	24-037-001	MAIN PROP, EHLT	1
28	20-117-003	EXTERNAL RETAINING RING, 1" DIA SHAFT	1
29	01-113-001	SPACER/SHIM (MCH BUSHING)	16
30	99-112-006	PIN, CLEVIS	4
31	65076	Ø1/8" X 1" COTTER PIN, Z-PLATED	4

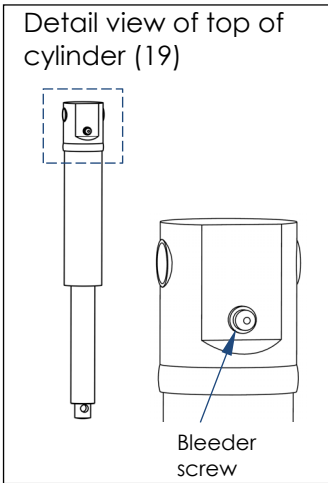
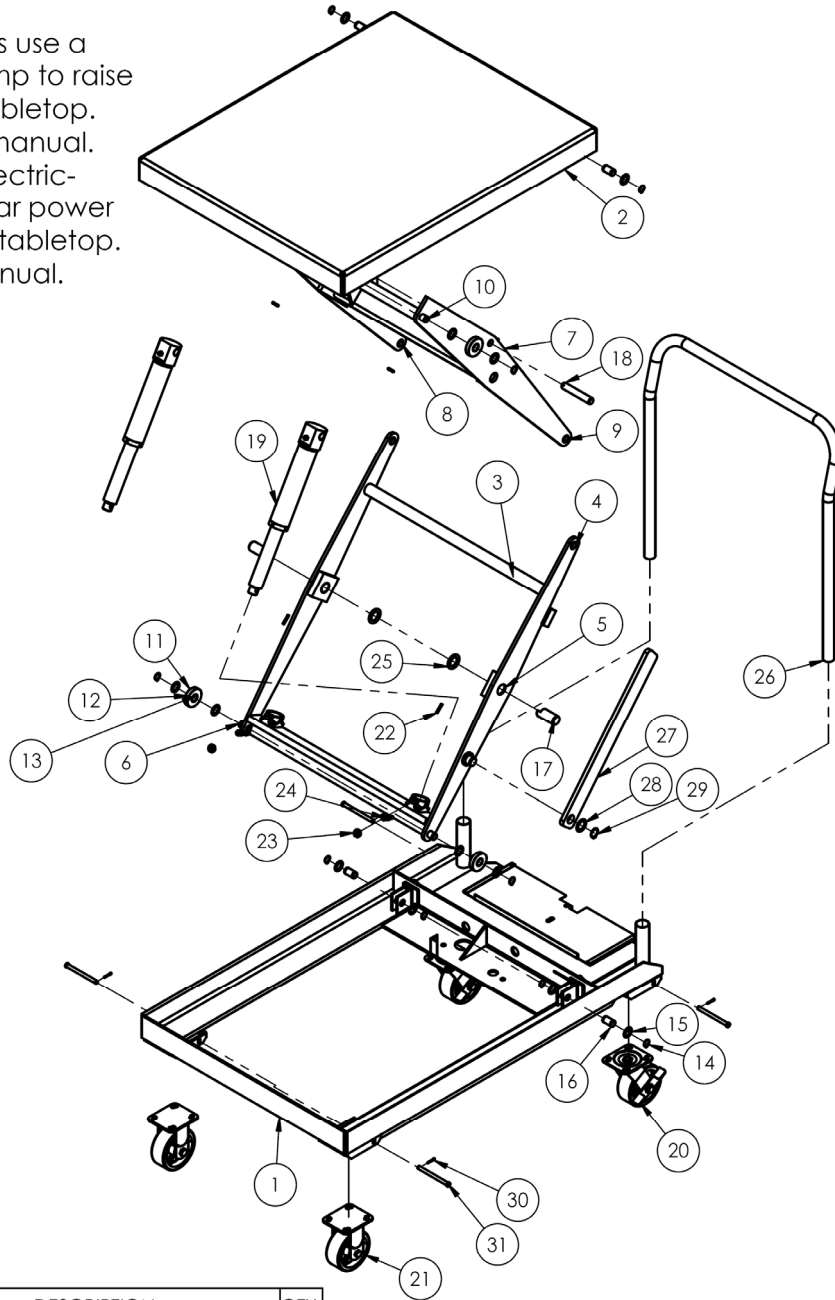


# CART-2000-3240-FP, CART-2000-3240-DC Exploded View

MODEL: 01-002-062-MANUAL

**NOTES:**

- 1) Suffix -FP: models use a manual foot pump to raise and lower the tabletop. See Autoshifter manual.
- 2) Suffix -DC: an electric-hydraulic modular power unit controls the tabletop. See MPU-DC manual.

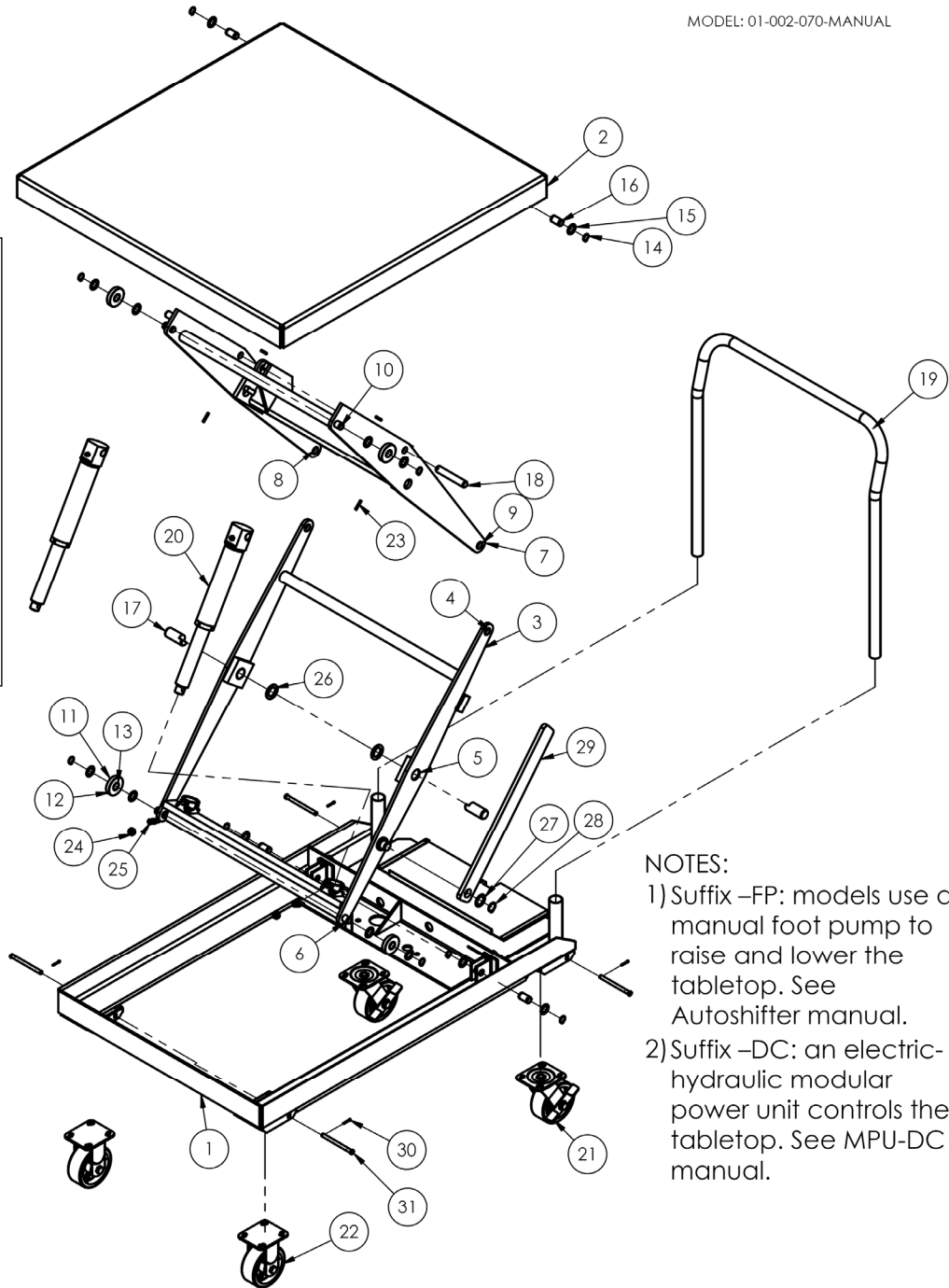
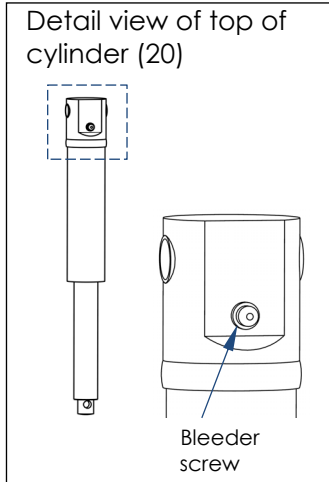


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	01-514-072	WELDMENT, FRAME	1
2	01-513-016	WELDMENT, DECK	1
3	01-510-004	WELDMENT, LEG, SCISSOR, OUTER	1
4	01-111-004	BUSHING, POLYGON 3/4 ID X 3/8 LG	1
5	01-111-005	BUSHING, POLYGON 1 1/8 ID X 1 LG	1
6	01-112-007	PIN, ROLLER	2
7	01-510-003	WELDMENT, LEG, SCISSOR, INNER	1
8	01-111-004	BUSHING, POLYGON 3/4 ID X 3/8 LG	1
9	01-111-004	BUSHING, POLYGON 3/4 ID X 3/8 LG	1
10	01-112-007	PIN, ROLLER	2
11	01-527-002	ROLLER, ASSY Ø2 1/4" X 1/2" W	4
12	01-027-002	ROLLER, Ø2 1/4" X 1/2"	1
13	01-111-008	BUSHING, POLYGON 3/4 ID X 1/2 LG	1
14	38-117-001	RETAINER RING, EXTERNAL FOR Ø3/4 SHAFT	12
15	01-113-001	SPACER/SHIM (MCH BUSHING)	16
16	01-112-009	PIN, HINGE PIVOT	4

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
17	01-112-008	PIN, SCISSOR PIVOT	2
18	01-112-010	PIN, CYLINDER PIVOT	2
19	99-021-915-001	CYLINDER, HYDRAULIC, Ø1 1/2" x 7", RAM STYLE	2
20	16-132-053	PU-5/2-S-SWB, SWIVEL CASTER W/BRAKE	2
21	16-132-022	PU-5/2-R, RIGID CASTER	2
22	64134	SPRING PIN	4
23	36209	1/2 - 13 HEX JAM NUT PLAIN	2
24	01-118-002	BOLT, CYLINDER RETAINING	2
25	33456	MACHINERY BUSHING, PLAIN FINISH, Ø1 1/8" X 10 GA	2
26	16-025-028	HANDLE, PUSH HANDLES, CHROMED	1
27	24-037-001	MAIN PROP, EHLT	1
28	33444	MACHINE BUSHING, Ø 1 X 18 GA.	1
29	20-117-003	EXTERNAL RETAINING RING, 1" DIA SHAFT	1
30	65076	Ø1/8" X 1" COTTER PIN, Z-PLATED	4
31	99-112-006	PIN, CLEVIS	4

# CART-2000-4242-FP, CART-2000-4242-DC Exploded View

MODEL: 01-002-070-MANUAL



**NOTES:**

- 1) Suffix -FP: models use a manual foot pump to raise and lower the tabletop. See Autosifter manual.
- 2) Suffix -DC: an electric-hydraulic modular power unit controls the tabletop. See MPU-DC manual.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	01-514-072	WELDMENT, FRAME	1
2	01-513-004	WELDMENT, DECK 42 x 42	1
3	01-510-004	WELDMENT, LEG, SCISSOR, OUTER LG	1
4	01-111-004	BUSHING, POLYGON 3/4 ID X 3/8 LG	1
5	01-111-005	BUSHING, POLYGON 1 1/8 ID X 1 LG	1
6	01-112-007	PIN, ROLLER	2
7	01-510-003	WELDMENT, LEG, SCISSOR, INNER LG	1
8	01-111-004	BUSHING, POLYGON 3/4 ID X 3/8 LG	1
9	01-111-004	BUSHING, POLYGON 3/4 ID X 3/8 LG	1
10	01-112-007	PIN, ROLLER	2
11	01-527-002	ROLLER ASSY Ø2 1/4" X 1 1/2" W	4
12	01-027-002	ROLLER, Ø2 1/4" X 1 1/2"	1
13	01-111-008	BUSHING, POLYGON 3/4 ID X 1 1/2 LG	1
14	38-117-001	RETAINER RING, EXTERNAL FOR Ø3/4 SHAFT	12
15	01-113-001	SPACER/SHIM (MCH BUSHING)	16
16	01-112-009	PIN, HINGE PIVOT	4

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
17	01-112-008	PIN, SCISSOR PIVOT	2
18	01-112-010	PIN, CYLINDER PIVOT	2
19	16-025-028	HANDLE, PUSH HANDLES, CHROMED	1
20	99-021-915-001	CYLINDER, HYDRAULIC, Ø1 1/2" x 7", RAM STYLE	2
21	16-132-053	PU-5/2-S-SWB, SWIVEL CASTER W/BRAKE	2
22	16-132-022	PU-5/2-R, RIGID CASTER	2
23	64134	SPRING PIN	4
24	36209	1/2 - 13 HEX JAM NUT PLAIN	2
25	01-118-002	BOLT, CYLINDER RETAINING	2
26	33456	MACHINERY BUSHING, PLAIN FINISH, Ø1 1/8" X 10 GA	2
27	33444	MACHINE BUSHING, Ø1 X 18 GA.	1
28	20-117-003	EXTERNAL RETAINING RING, 1" DIA SHAFT	1
29	24-037-001	MAIN PROP. EHIT	1
30	65076	Ø1/8" X 1" COTTER PIN, Z-PLATED	4
31	99-112-006	PIN, CLEVIS	4

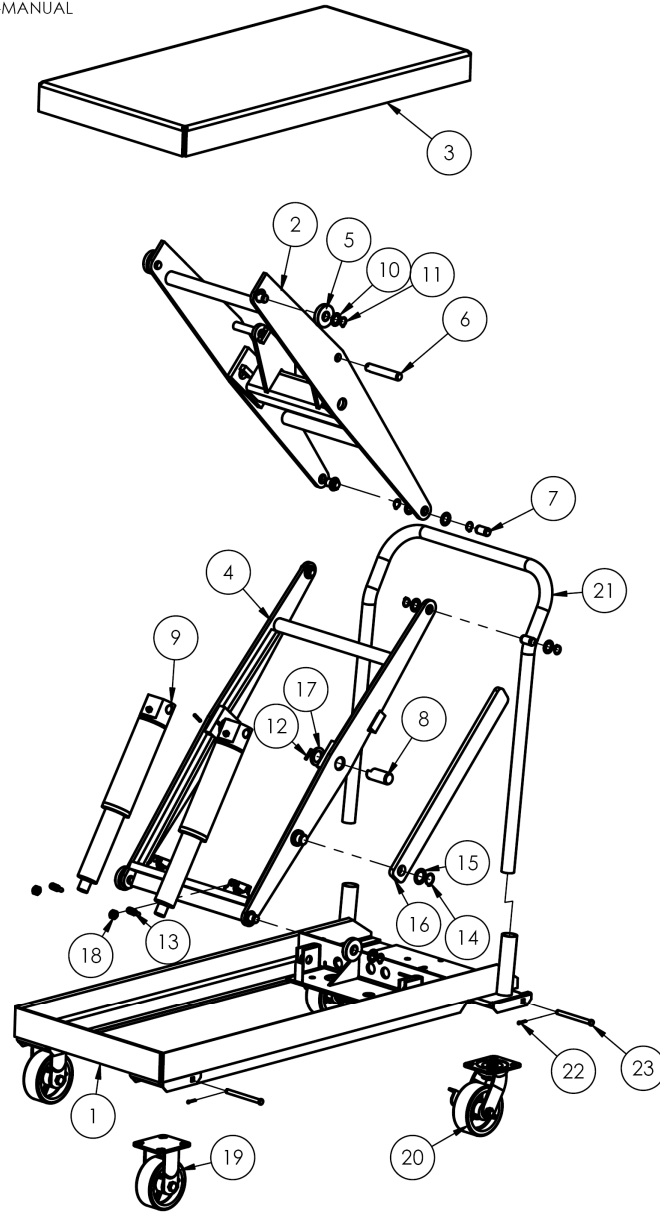
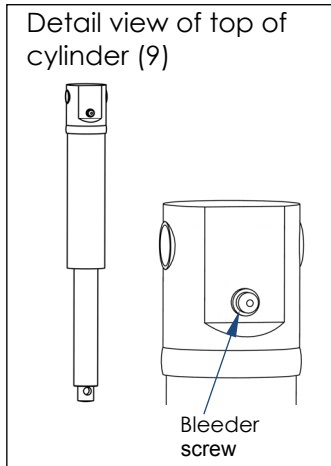
### CART-2500-2040-FP, CART-2500-2040-DC EXPLODED VIEW

MODEL: 01-002-358-MANUAL

**NOTES:**

1) Models with -FP: a manual foot pump (not shown in diagram) raises and lowers the tabletop. See "Two Speed, Auto-Shifting Foot Pump Instruction Manual"

2) Models with -DC suffix: an electric-hydraulic modular power unit (not shown in diagram) controls the tabletop. See "MPU-DC Battery-Powered Modular Power Unit Instruction Manual".



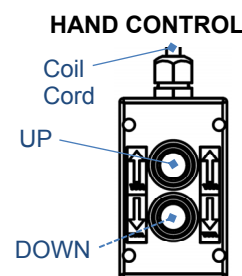
ITEM NO.	PART NO.	DESCRIPTION	QTY.	ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	01-514-003	WELDMENT, FRAME	1	13	01-118-002	BOLT, CYLINDER RETAINING	2
2	01-510-006	WELDMENT, LEG SCISSOR, INNER	1	14	20-117-003	EXTERNAL RETAINING RING, 1" SHAFT	1
3	01-513-003	WELDMENT, DECK, 20" x 40"	1	15	33444	MACHINE BUSHING, 1" X 18GA.	1
4	01-510-095	WELDMENT, LEG, SCISSOR OUTSIDE	1	16	24-037-001	MAINTENANCE PROP	1
5	01-527-002	ROLLER, ASSY. 2 1/4" x 1/2"	4	17	33456	MACHINERY BUSHING, PLAIN FINISH, 1 1/8" X 10GA.	2
6	01-112-010	PIN, CYLINDER PIVOT	2	18	36209	1/2" - 13 HEX JAM NUT, PLAIN	2
7	01-112-009	PIN, HINGE PIVOT	4	19	16-132-022	PU-5/2/R, RIGID CASTER	2
8	01-112-008	PIN, SCISSOR PIVOT	2	20	16-132-053	PU-5/2-S-SWB, SWIVEL CASTER WITH BRAKE	2
9	99-021-950	CYLINDER, HYDRAULIC, 2" X 7"	2	21	99-025-014	HANDLE, PUSH, 22' C/C	1
10	01-113-001	SPACER/SHIM (MCH BUSHING)	16	22	65076	1/8" X 1" COTTER PIN, Z-PLATED	4
11	38-117-001	RETAINER RING, EXTERNAL, 3/4" SHAFT	12	23	99-112-006	PIN, CLEVIS	4
12	64134	SPRING PIN	4				

## Using the cart:

All loads applied to the tabletop must be centered and evenly distributed. Loads should not overhang the deck, i.e. should be entirely contained within the deck area. The capacity of the cart appears on the data label of your unit (see label 287 on p. 13). Capacity is the maximum *net* weight the cart can support. Exceeding the capacity could result in personal injury and/or the cart might be permanently damaged.

Elevate the tabletop by pressing the UP button on the hand control. Lower it by pressing the DOWN button. (See MPU-DC instruction manual for detailed instructions about the operation of the hand control and modular power unit). Transport loads with the tabletop lowered. Elevate the tabletop to an ergonomic height when removing loads or working on an item.

Apply the caster brakes whenever the cart is stopped (see diagram in “Inspections and Maintenance” section). Push down on the brake lever to apply the brake. Lift the lever to release the brake.



## Bleeding Air from Hydraulic System:

If the tabletop lowers extremely slowly or not at all when the DOWN button is pressed, air might be caught in the cylinder. Air causes a safety feature called a velocity fuse to close. When the velocity fuse is closed, the tabletop will not lower. To correct this issue, bleed air from the system. A bleeder screw is located at the top of the cylinder (see appropriate “Exploded view” on pages 4-11). The bleeder screw includes a hose fitting for a small diameter hose. By attaching a hose to the screw, any oil that escapes during the bleeding process can be directed into a container for proper disposal.

- Unload the tabletop.
- Rotate the maintenance prop into position (see diagram in “Inspections and Maintenance” section).
- Press the DOWN button until the tabletop is entirely supported by the maintenance prop.
- Locate the bleeder valve located at the top of the cylinder (it looks like a grease zerk; see the appropriate “Exploded View” on pages 4-11). Hold a rag over the valve. Open it about a half turn with a wrench (turn the hex until air begins to escape). Oil and air will sputter from the valve.
- Jog the motor a few times by briefly pressing and then releasing the UP button. If air continues to escape from the bleeder valve, jog the motor several more times. Wait at least a few seconds (5-10) between jogs.
- Close the valve once air no longer is heard or seen bubbling out of it. Just a clear stream of oil should be seen flowing from the valve.
- Remove the cover from the modular power unit. Check the oil level in the reservoir. If the surface of the oil is lower than 1 to 1½ in. below the fill port, then add oil. Use anti-wear hydraulic fluid with a viscosity grade of 150 SUS at 100°F (ISO 32 @ 40°C) like AW-32 or Dexron transmission fluid.

## Inspections and Maintenance:

Before putting the cart into regular service, make a written record of its appearance and operation. Pay particular attention to pivot points and pivot point hardware. Cycle the tabletop up and down. Describe the motion of the legs and roller. Describe the sound of the power unit as it operates. Also include a description of the cylinders and pistons as they extend and retract. Each piston should extend and retract smoothly and at the same rate as the other. This record establishes normal condition. During future inspections, compare observations to the record to determine if a component is in normal condition. DO NOT use the cart unless it is in normal condition.

Immobilize the tabletop with the maintenance prop before inspecting or performing maintenance on the cart.

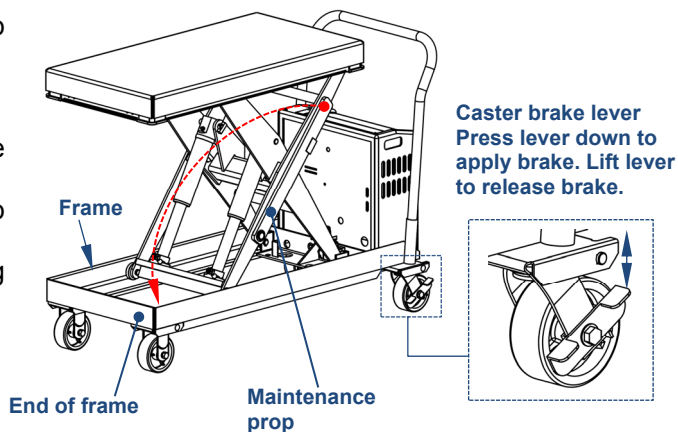
1. Unload the cart.
2. Raise the tabletop to its maximum height.
3. Rotate the maintenance prop into contact with the frame (see dotted arrow).
4. Lower the tabletop until the maintenance prop presses against the end of the frame.

(A) Before each use, check the cart for any of the following conditions. Correct all problems before using the cart

- Oil leaks;
- Pinched or chafed hoses;
- Deformation of legs, frame, or tabletop;
- Unusual noise or binding.

(B) Monthly inspections:

- Check the oil level. Oil should be 1in. to 1½in. below the top of the reservoir/tank (see MPU-DC instruction manual) with the tabletop fully lowered. Check for oil leaks. Resolve the issue as described in “Troubleshooting” on p. 13-14. Add oil, if necessary.



- Check the hydraulic hoses for wear, kinks, cuts, etc. Replace damaged hoses.
- Check hardware: roller bushings, axle pins and retaining rings, clevises, pivot points, fasteners, and casters for severe wear and damage. Replace all components that are severely worn or damaged.
- Inspect each leg roller for looseness and/or severe wear. Replace rollers as necessary.
- Cycle the tabletop. Listen for unusual noises; watch for abnormal movement. See "Troubleshooting", p. 13-14.
- Make sure all labels are in place & in readable condition. See "Labeling diagram" on p. 13.
- Clean debris from all surfaces.

(C) Yearly: Change the oil at least once a year. The oil should be changed as soon as it darkens, becomes gritty, or appears milky. Milky appearance indicates the presence of water. Replace the oil with AW-32 hydraulic fluid or its equivalent.

**Labeling diagram:**

The cart should always be labeled as shown. Replace any label that is missing, damaged, or not easily readable (e.g. faded). Contact Vestil to order replacement labels.

Label 658:

⚠ WARNING	⚠ ADVERTENCIA	⚠ AVERTISSEMENT
Do not operate or move with unstable loads DO NOT LOAD beyond rated capacity DISTRIBUTE LOAD EVENLY DO NOT sit or ride	No use a mueva con cargas inestables No cargue mas de la capacidad tasada DISTRIBUYA LA CARGA A NIVEL NO SE SIENTE o vaya en el carro	Ne pas utiliser avec une charge instable NE PAS CHARGER au-delà du débit nominale DISTRIBUER la charge régulièrement NE PAS VOUS ASSEoir OU VOUS PROMENER sur le chariot

Label 287: Model & capacity

MODEL/MODEL/MODELE	
STATIC CAPACITY (evenly distributed)	lbs.
LA CAPACIDAD CONSTANTE (distribuida uniformemente)	kgs.
CAPACITE STATIQUE (distribuee régulièrement)	kgs.
SERIAL/SERIE/SERIE	

Label 206 (inside power unit housing):  
Hydraulic oil specifications

ISO 32 / 150 SUS
HYDRAULIC OIL OR NON-SYNTHETIC TRANSMISSION FLUID ACEITE HIDRAULICO O LIQUIDOS DE TRANSMISION NO SINTETICOS HUILE OU LIQUIDE HYDRAULIQUE NON-SYNTHEIQUE

Label 824: Stand clear

**⚠ DANGER**

To avoid bodily injury, stand clear while in motion.

**⚠ PELIGRO**

Para evitar daños, manténgase alejado cuando en movimiento

Label 208: Keep clear of pinch point

⚠ WARNING	⚠ ADVERTENCIA	⚠ AVERTISSEMENT
KEEP CLEAR OF PINCH POINT	MANTENGASE ALEJADO DEL PUNTO DE CORTE	SE TENIR À DISTANCE DU POINT DE PINCEMENT

Label 269: Use maintenance prop

⚠ WARNING	⚠ ADVERTENCIA
INSTALL ALL SUPPLIED MAINTENANCE STOPS before any maintenance is performed on unit. DO NOT perform maintenance with load on unit.	INSTALE TODAS LAS PARADAS DE MANTENIMIENTO SUMINISTRADAS antes de hacer cualquier reparación en la unidad. NO haga ninguna reparación con la unidad cargada.

Label 212: Lock casters

⚠ WARNING	⚠ ADVERTENCIA	⚠ AVERTISSEMENT
LOCK CASTER and/or FLOOR LOCK when loading and unloading	La RUEDECILLA de la CERRADURA y/o el PISO CIERRAN al cargar y descargar	LOCK CASTER et/ou SOL LOCK lors du chargement et de déchargement

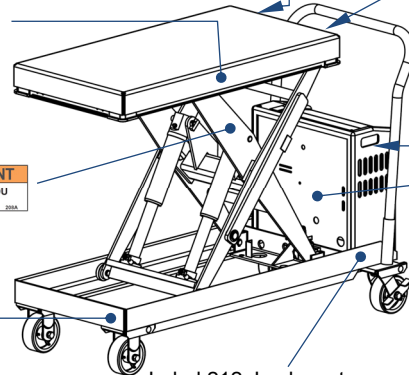
Label 295 (on outside of power unit housing):  
Battery handling hazards

**⚠ WARNING**

Enclosed battery contains hazardous chemicals.  
DO NOT handle enclosed battery UNLESS wearing eye protection and other appropriate personal protective equipment.  
DO NOT directly contact skin with battery.  
DO NOT expose to sparks or extreme heat; battery contains explosive gases.

**⚠ ADVERTENCIA**

La batería incluye contineer materiales peligrosos.  
NO use la batería incluida A NO SER que lleve protección de ojos y otros equipos de protección apropiados para el personal.  
NO tenga contacto directo en la piel con la batería.  
NO exponga a destellos o a calor excesivo; la batería contiene gases explosivos.



**Troubleshooting:**

**NOTE:** Use this guide in conjunction with the Troubleshooting section of your MPU-DC manual. Solutions in *italics* are found in the MPU-DC manual. Contact Vestil for assistance with issues not listed below.

Issue	Explanation	Solution
1. Tabletop does not rise when UP button pressed, but pump is running.	<p>a. Voltage at motor terminals too low to run pump.</p> <p>b. Hydraulic hose leaking.</p> <p>c. Fluid level in hydraulic reservoir too low.</p> <p>d. Load exceeds capacity/max. rated load limit (relief valve opening).</p> <p>e. Clogged suction filter.</p> <p>f. Suction line leaking or loose fittings.</p> <p>g. Clogged filler/breather cap on tank.</p> <p>h. Lowering valve energized by faulty wiring or stuck open.</p> <p>i. Hydraulic pump malfunctioning.</p>	<p>a. <i>Measure voltage at motor terminals (or as close to terminals as possible) while pump runs under load. If voltage is adequate, check wiring.</i></p> <p>b. Correct as appropriate.</p> <p>c. <i>Add fluid. The system uses HO150 hydraulic fluid. Replace the hydraulic fluid with an anti-wear hydraulic fluid of viscosity grade of 150 SUS at 100°F (ISO 32 @ 40°C) such as AW-32 or Dexron transmission fluid.</i></p> <p>d. Reduce weight applied to tabletop. DO NOT change relief valve setting!!</p> <p>e. <i>Remove filter and clean it.</i></p> <p>f. <i>Inspect all fittings for proper fit.</i></p> <p>g. <i>Remove and clean.</i></p> <p>h. <i>Remove lowering valve and clean.</i></p> <p>i. <i>Disconnect hydraulic line from cylinder. Put free end of hose in large container</i></p>

		<p>and cycle the pump. If no oil output, check pump-motor coupling. Contact factory to order replacement pump, if necessary.</p> <p>j. <i>Recharge battery.</i></p>
2. Forks rise too slowly	<p>j. Low battery charge.</p> <p>k. Debris stuck in lowering solenoid valve causing portion of fluid to flow to reservoir.</p> <p>l. Debris clogging suction filter or breather cap.</p> <p>m. Pinched hose.</p> <p>n. Low motor voltage.</p> <p>o. Too much weight applied to tabletop.</p> <p>p. Pump malfunctioning.</p> <p>q. Insufficient battery charge.</p>	<p>k. <i>Lower tabletop. Remove solenoid valve and clean.</i></p> <p>l. <i>Correct as appropriate (see also solutions "f" and "h").</i></p> <p>m. <i>Repair the hose.</i></p> <p>n. <i>Measure voltage at motor terminals (or as close to terminals as possible) while pump runs under load. If voltage is adequate, check wiring.</i></p> <p>o. <i>Reduce weight applied to tabletop. DO NOT change relief valve setting!!</i></p> <p>p. <i>Disconnect hydraulic line from cylinder. Put free end of hose in large container and cycle the pump. If no oil output, check pump-motor coupling. Contact factory to order replacement pump, if necessary.</i></p> <p>q. <i>Recharge battery.</i></p>
3. Motor labors or is really hot	<p>r. Low voltage.</p> <p>s. Incorrect wiring.</p> <p>t. Oil starvation causing pump to bind. High heat produced. Pump might be permanently damaged.</p> <p>u. Binding cylinders.</p> <p>v. Insufficient battery charge.</p>	<p>r. <i>See solution a.</i></p> <p>s. <i>Confirm that one leg of motor line not connected to ground.</i></p> <p>t. <i>See d, f, g, h, and i.</i></p> <p>u. <i>Contact technical service.</i></p> <p>v. <i>Recharge battery.</i></p>
4. Tabletop rises in jerks or support of the tabletop feels spongy.	<p>w. Fluid starvation.</p> <p>x. Air trapped in cylinder(s).</p>	<p>w. <i>See solutions d, f, g, i.</i></p> <p>x. <i>See "Removing air from hydraulic system".</i></p>
5. Tabletop lowers too slowly when loaded.	<p>y. Filter of lowering solenoid valve clogged.</p> <p>z. Pinched hydraulic hose.</p> <p>aa. Debris in flow control valve.</p> <p>bb. Binding cylinders.</p> <p>cc. Debris in velocity fuse.</p>	<p>y. <i>Remove lowering solenoid. Clean filter.</i></p> <p>z. <i>Repair hose.</i></p> <p>aa. <i>Remove and clean flow control valve.</i></p> <p>bb. <i>Contact technical service.</i></p> <p>cc. <i>Remove and clean fuse.</i></p>
6. Tabletop lowers too rapidly.	<p>dd. Leaking hoses and/or fittings.</p> <p>ee. Check valve stuck open.</p> <p>ff. Debris in flow control valve.</p>	<p>dd. <i>Repair as appropriate.</i></p> <p>ee. <i>Remove and clean check valve.</i></p> <p>ff. <i>Remove flow control valve from manifold and clean.</i></p>
7. Tabletop rises but does not maintain elevation and slowly lowers on its own.	<p>gg. Lowering solenoid valve incorrectly wired or stuck open.</p> <p>hh. Check valve stuck open.</p> <p>ii. Leaking hoses or fittings.</p> <p>jj. Cylinder packing worn or damaged.</p>	<p>gg. <i>See solution k.</i></p> <p>hh. <i>Remove and clean check valve.</i></p> <p>ii. <i>Repair as appropriate.</i></p> <p>jj. <i>Replace packing.</i></p>
8. Tabletop rises but does not lower.	<p>kk. Lowering solenoid wired incorrectly.</p> <p>ll. Lowering solenoid valve stuck open.</p> <p>mm. Faulty lowering solenoid coil.</p> <p>nn. Object in frame blocking leg rollers.</p> <p>oo. Binding cylinders.</p> <p>pp. Velocity fuse is open.</p>	<p>kk. <i>Correct wiring.</i></p> <p>ll. <i>Lightly tap the solenoid coil body to seat it properly. Striking the coil hard might damage the stem. DO NOT remove the solenoid from the manifold because the tabletop will descend dangerously quickly.</i></p> <p>mm. <i>Refer to electrical system diagram</i></p> <p>nn. <i>Raise tabletop a clean debris affecting rollers from frame.</i></p> <p>oo. <i>Contact technical service.</i></p> <p>pp. <i>Jog motor to repressurize hydraulic system.</i></p>
9. Erratic operation	<p>qq. Insufficient battery charge.</p>	<p>qq. <i>Recharge battery.</i></p>

## LIMITED WARRANTY

Vestil Manufacturing Corporation (“Vestil”) warrants this product to be free of defects in material and workmanship during the warranty period. Our warranty obligation is to provide a replacement for a defective, original part covered by the warranty after we receive a proper request from the Warrantee (you) for warranty service.

### Who may request service?

Only a warrantee may request service. You are a warrantee if you purchased the product from Vestil or from an authorized distributor AND Vestil has been fully paid.

### Definition of “original part”?

An original part is a part used to make the product as shipped to the Warrantee.

### What is a “proper request”?

A request for warranty service is proper if Vestil receives: 1) a photocopy of the Customer Invoice that displays the shipping date; AND 2) a written request for warranty service including your name and phone number. Send requests by one of the following methods:

<u>US Mail</u>	<u>Fax</u>	<u>Email</u>
Vestil Manufacturing Corporation 2999 North Wayne Street, PO Box 507 Angola, IN 46703	(260) 665-1339 <u>Phone</u> (260) 665-7586	info@vestil.com Enter “Warranty service request” in subject field.

In the written request, list the parts believed to be defective and include the address where replacements should be delivered. After Vestil receives your request for warranty service, an authorized representative will contact you to determine whether your claim is covered by the warranty. Before providing warranty service, Vestil will require you to send the entire product, or just the defective part (or parts), to its facility in Angola, IN.

### What is covered under the warranty?

The warranty covers defects in the following original, dynamic parts: motors, hydraulic pumps, electronic controllers, switches, and cylinders. It also covers defects in original parts that wear under normal usage conditions (“wearing parts”), such as bearings, hoses, wheels, seals, brushes, and batteries.

### How long is the warranty period?

The warranty period for original dynamic components is 1 year. For wearing parts, the warranty period is 90 days. Both warranty periods begin on the date Vestil ships the product to the Warrantee. If the product was purchased from an authorized distributor, the periods begin when the distributor ships the product. Vestil may, at its sole discretion, extend a warranty period for products shipped from authorized distributors by up to 30 days to account for shipping time.

### If a defective part is covered by the warranty, what will Vestil do to correct the problem?

Vestil will provide an appropriate replacement for any *covered* part. An authorized representative of Vestil will contact you to discuss your claim.

### What is not covered by the warranty?

The Warrantee (you) are responsible for paying labor costs and freight costs to return the product to Vestil for warranty service.

### Events that automatically void the Limited Warranty.

- Misuse;
- Negligent assembly, installation, operation or repair;
- Installation/use in corrosive environments;
- Inadequate or improper maintenance;
- Damage sustained during shipping;
- Collisions or other accidents that damage the product;
- Unauthorized modifications: Do not modify the product IN ANY WAY without first receiving written authorization from Vestil.

### Do any other warranties apply to the product?

Vestil Manufacturing Corp. makes no other express warranties. All implied warranties are disclaimed to the extent allowed by law. Any implied warranty not disclaimed is limited in scope to the terms of this Limited Warranty. Vestil makes no warranty or representation that this product complies with any state or local design, performance, or safety code or standard. Noncompliance with any such code or standard is not a defect in material or workmanship.

