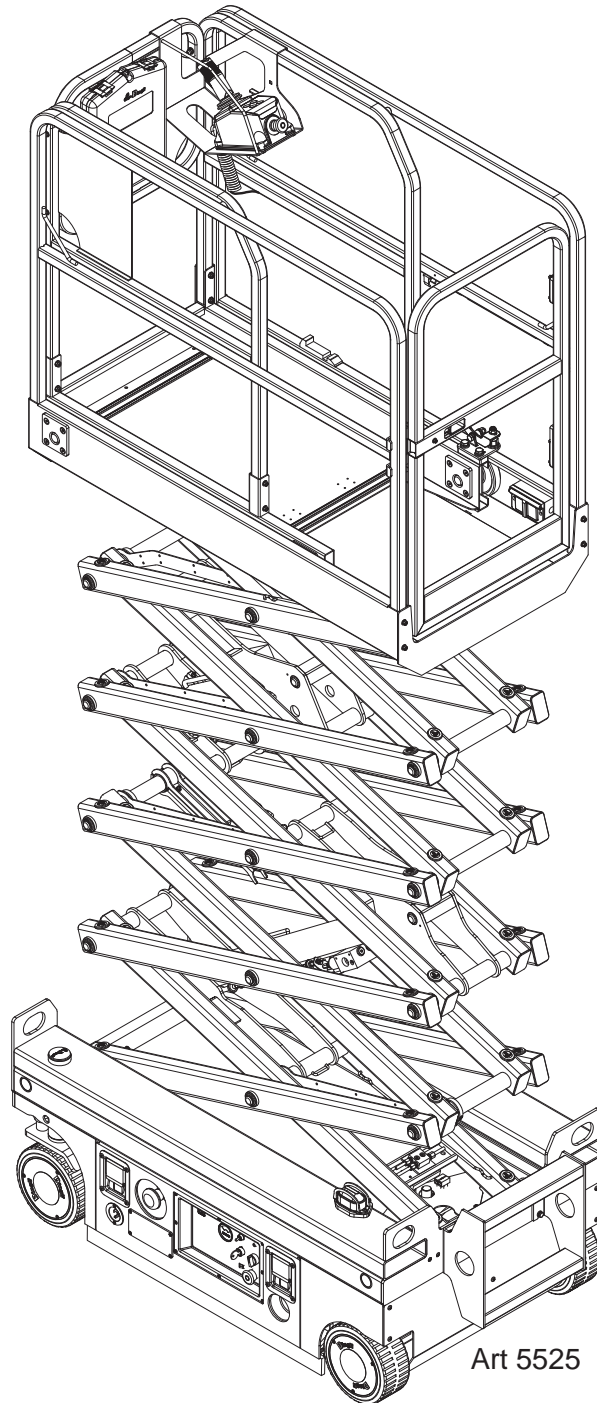




Service & Parts Manual

Micro19



Art 5525

Serial Number Range
16900000 - Up

Part # 94554
July 2021

Revision History

Date	Reason for Update
November 2017	New Release
July 2019	Hydraulic Power Unit Assembly
November 2019	New Drive Wheel Assembly - From Serial #16907561 Updated Error Indicator Readout table
February 2020	Updated Platform Extension Assembly



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Service Introduction

This Service section is designed to provide you, the customer, with the instructions needed to properly maintain the MEC self-propelled aerial work platform. When used in conjunction with the illustrated Parts section in this manual and the Operator's Manual (provided separately), this manual will assist you in making necessary adjustments and repairs, and identifying and ordering the correct replacement parts.

All parts represented here are manufactured and supplied in accordance with MEC quality standards. We recommend that you use genuine MEC parts to ensure proper operation and reliable performance.

To obtain maximum benefits from your MEC Aerial Work Platforms, always follow the proper operating and maintenance procedures. Only trained authorized personnel should be allowed to operate or service this machine. Service personnel should read and study the Operator's, and the Service and Parts Manuals in order to gain a thorough understanding of the unit prior to making any repairs.

MEC Operator Policy

Note: *The best method to protect yourself and others from injury or death is to use common sense. If you are unsure of any operation, **don't start** until you are satisfied that it is safe to proceed and have discussed the situation with your supervisor.*

Service personnel and machine operators must understand and comply with all warnings and instructional decals on the body of the machine, at the ground controls, and platform control console.



MODIFICATIONS OF THIS MACHINE FROM THE ORIGINAL DESIGN AND SPECIFICATIONS WITHOUT WRITTEN PERMISSION FROM MEC ARE STRICTLY FORBIDDEN. A MODIFICATION MAY COMPROMISE THE SAFETY OF THE MACHINE, SUBJECTING OPERATOR(S) TO SERIOUS INJURY OR DEATH.

MEC's policies and procedures demonstrate our commitment to Quality and our relentless ongoing efforts towards Continuous Improvement, due to which product specifications are subject to change without notice.

Any procedures not found within this manual must be evaluated by the individual to assure oneself that they are "proper and safe."

Your MEC Aerial Work Platform has been designed, built, and tested to provide many years of safe, dependable service. Only trained, authorized personnel should be allowed to operate or service the machine.

MEC, as manufacturer, has no direct control over machine application and operation. Proper safety practices are the responsibility of the user and all operating personnel.

If there is a question on application and/or operation, contact MEC Aerial Work Platforms:



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Safety Symbols & General Safety Tips

MEC manuals and decals use symbols, colors and signal words to help you recognize important safety, operation and maintenance information.



RED and the word DANGER – Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



ORANGE and the word WARNING – Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



YELLOW with alert symbol and the word CAUTION – Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



YELLOW without alert symbol and the word CAUTION – Indicates a potentially hazardous situation which, if not avoided, may result in property damage.



GREEN and the word NOTICE – Indicates operation or maintenance information.

Regular inspection and constant maintenance is the key to efficient economical operation of your aerial work platform. It will help to assure that your equipment will perform satisfactorily with a minimum of service and repair.

The actual operating environment of the machine governs the inspection schedule. Correct lubrication is an essential part of the preventative maintenance to minimize wear on working parts and ensure against premature failure. By maintaining correct lubrication, the possibility of mechanical failure and resulting downtime is reduced to a minimum.

- Never leave hydraulic components or hoses open. They must be protected from contamination (including rain) at all times.
- Never open a hydraulic system when there are contaminants in the air.
- Always clean the surrounding area before opening hydraulic systems.
- Use only recommended lubricants. Improper lubricants or incompatible lubricants may be as harmful as no lubrication.
- Watch for makeshift “fixes” which can jeopardize safety as well as lead to more costly repair.



Specifications

Working Height*		24 ft 4 in	7.6 m
Platform Height		18 ft 4 in	5.6 m
Maximum Drive Height		18 ft 4 in	5.6 m
Stowed Height	Top Guardrail	79 in	2.0 m
	Platform Floor	39 in	1.0 m
Platform Extension Length		23.6 in	0.6 m
Machine Weight** (Unloaded)		2690 lb	1220 kg
Lift Capacity	Total	500 lb	227 kg
Deck Extension Capacity		1 Person / 250lb (113 kg)	
Maximum Occupants		2	
Platform Length (Extended)		78 in	2.0 m
Platform Length (Retracted)		54 in	1.4 m
Width (Overall)		32 in	0.81 m
Platform Dimensions (Length x Width)		53.9 x 27.6 in	1.37 x 0.7 m
Wheel Base		44.5 in	1.13 m
Turning Radius - Inside		17.7 in	0.45 m
Ground Clearance - Stowed		2.4 in	6 cm
Ground Clearance - Elevated		0.6 in	1.5 cm
Drive Speed (Proportional)	Stowed	0-2.5 mph	0-4 km/h
	Raised or Extended	0-0.5 mph	0-8 km/h
Gradability		25%/14°	
Maximum Side Slope - Stowed		5°	
Ground Pressure/Wheel	Min/Max	83/112 psi	5.8/7.9 kg/cm ²
Maximum Wheel Load		960 lb	435 kg
Occupied Floor Pressure Full Load Platform Retracted		239 psf	1167 kg/m ²
Occupied Floor Pressure Platform Deck Extended		171 psf	835 kg/m ²
Maximum Operating Wind Speed		28 mph / 12.5 m/sec (45 km/h)	
Tire Size		9 x 4 inch/230 x 100 mm	
Wheel Nut Torque		166.7 ft-lb / 226 Nm, Secured with cotter pin	
Hydraulic Pressure		2320 psi/ 160 bar	
Power System Voltage		24 Volt DC	
Battery Charger	Input	110-230 V AC, 50-60 Hz	
	Output	24 Volt DC	
Batteries		Two 12 Volt Deep Cycle 115Ah	
Airborne Noise Emissions		<70 dB	
Meets applicable requirements of ANSI A92.6-2006.			
*Working Height adds 6 feet (2 m) to platform height.			
**Weight may increase with certain options.			

Bolt Torque Specification - American Standard

Fasteners

Use the following values to apply torque unless a specific torque value is called out for the part being used.

American Standard Cap Screws								
SAE Grade	5				8			
Cap Screw Size (inches)								
	Torque				Torque			
	Ft.	Lbs	Nm		Ft.	Lbs	Nm	
	Min	Max	Min	Max	Min	Max	Min	Max
1/4 - 20	6.25	7.25	8.5	10	8.25	9.5	11	13
1/4 - 28	8	9	11	12	10.5	12	14	16
5/16 - 18	14	15	19	20	18.5	20	25	27
5/16 - 24	17.5	19	12	26	23	25	31	34
3/8 - 16	26	28	35	38	35	37	47.5	50
3/8 - 24	31	34	42	46	41	45	55.5	61
7/16 - 14	41	45	55.5	61	55	60	74.5	81
7/16 - 20	51	55	69	74.5	68	75	92	102
1/2 - 13	65	72	88	97.5	86	96	116	130
1/2 - 20	76	84	103	114	102	112	138	152
9/16 - 12	95	105	129	142	127	140	172	190
9/16 - 18	111	123	150	167	148	164	200	222
5/8 - 11	126	139	171	188	168	185	228	251
5/8 - 18	152	168	206	228	203	224	275	304
3/4 - 10	238	262	322	255	318	350	431	474
3/4 - 16	274	302	371	409	365	402	495	544
7/8 - 9	350	386	474	523	466	515	631	698
7/8 - 14	407	448	551	607	543	597	736	809
1 - 8	537	592	728	802	716	790	970	1070
1 - 14	670	740	908	1003	894	987	1211	1137



Torque values apply to fasteners as received from the supplier, dry or when lubricated with normal engine oil.

If special graphite grease, molydisulphide grease, or other extreme pressure lubricants are used, these torque values do not apply.

Bolt Torque Specification - Metric Standard

Fasteners

Use the following values to apply torque unless a specific torque value is called out for the part being used

Metric Cap Screws								
Metric Grade	8.8				10.9			
Cap Screw Size (Millimeters)								
	Torque				Torque			
	Ft.	Lbs	Nm		Ft.	Lbs	Nm	
	Min	Max	Min	Max	Min	Max	Min	Max
M6 × 1.00	6	8	8	11	9	11	12	15
M8 × 1.25	16	20	21.5	27	23	27	31	36.5
M10 × 1.50	29	35	39	47	42	52	57	70
M12 × 1.75	52	62	70	84	75	91	102	123
M14 × 2.00	85	103	115	139	120	146	163	198
M16 × 2.50	130	158	176	214	176	216	238	293
M18 × 2.50	172	210	233	284	240	294	325	398
M20 × 2.50	247	301	335	408	343	426	465	577
M22 × 2.50	332	404	450	547	472	576	639	780
M24 × 3.00	423	517	573	700	599	732	812	992
M27 × 3.00	637	779	863	1055	898	1098	1217	1488
M30 × 3.00	872	1066	1181	1444	1224	1496	1658	2027

Torque values apply to fasteners as received from the supplier, dry or when lubricated with normal engine oil.

If special graphite grease, molydisulphide grease, or other extreme pressure lubricants are used, these torque values do not apply.

Hydraulic Components Torque Table

Note: Always lubricate threads with clean hydraulic fluid prior to installation.

Use the following values to torque hydraulic components when a specific value is not available. Always check for torque values in the following places before relying on the Hydraulic Components Torque Table.

- Parts drawings and service instructions in this manual.
- Packaging and instruction sheets provided with new parts.
- Instruction manuals provided by the manufacturer of the component being serviced.

Type: SAE Port Series	Cartridge Poppet		Fittings		Hoses	
	Ft. lbs	Nm	Ft. lbs	Nm	In. lbs	Nm
#4	N/A	N/A	N/A	N/A	135 - 145	15 - 16
#6	N/A	N/A	10 - 20	14 - 27	215 - 245	24 - 28
#8	25 - 30	31 - 41	25 - 30	34 - 41	430 - 470	49 - 53
#10	35 - 40	47 - 54	35 - 40	47 - 54	680 - 750	77 - 85
#12	85 - 90	115 - 122	85 - 90	115 - 122	950 - 1050	107 - 119
#16	130 - 140	176 - 190	130 - 140	176 - 190	1300 - 1368	147 - 155

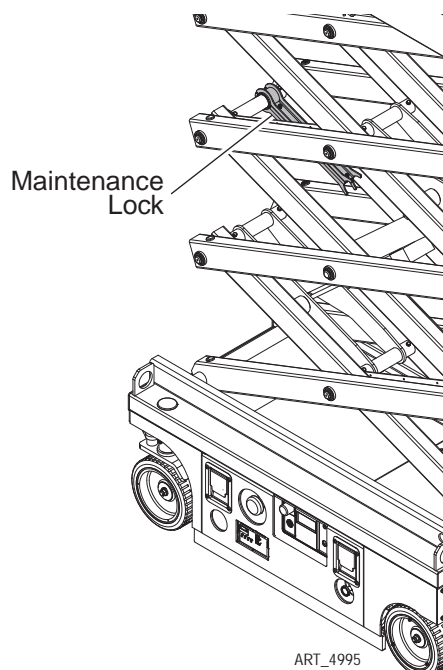
Maintenance Lock

DEATH OR SERIOUS INJURY HAZARD!



NEVER PERFORM WORK OR INSPECTION ON THE MACHINE WITH THE PLATFORM ELEVATED WITHOUT FIRST BLOCKING THE SCISSOR ASSEMBLY WITH THE MAINTENANCE LOCK.

1. Raise the platform approximately 8ft / 2.5m from the ground.
2. Rotate the Maintenance Lock away from the machine and let it hang down.
3. Lower the platform until the Maintenance Lock rests securely on the link. Keep clear of the Maintenance Lock when lowering the platform.



Hydraulic, Electrical and Total System

Hydraulic System



HYDRAULIC FLUID UNDER PRESSURE CAN PENETRATE AND BURN SKIN, DAMAGE EYES, AND MAY CAUSE SERIOUS INJURY, BLINDNESS, AND EVEN DEATH.

CORRECT LEAKS IMMEDIATELY.



Hydraulic fluid leaks under pressure may not always be visible. Check for pin hole leaks with a piece of cardboard, not your hand.

Electrical System



Prevent damage to battery and/or electrical system;

- **Always disconnect the negative battery cable first.**
 - **Always connect the positive battery cable first.**
-

When the negative cable is installed, a spark will occur if contact is made between the positive side of the battery and a metal surface on the machine. This can cause damage to the electrical system, battery explosion, and personal injury.

Total System

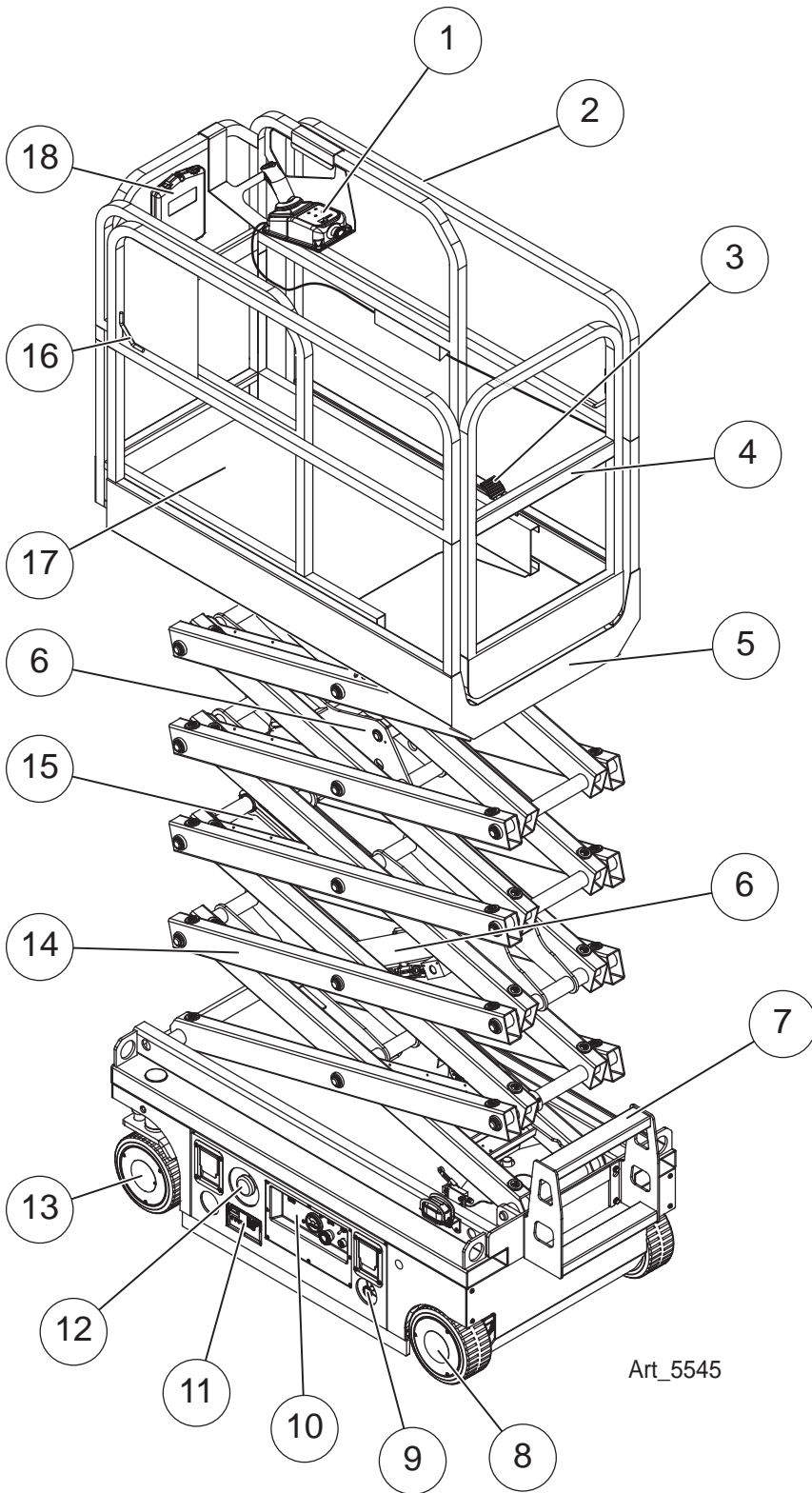
FAILURE TO PERFORM PREVENTIVE MAINTENANCE AT RECOMMENDED INTERVALS MAY RESULT IN THE UNIT BEING OPERATED WITH A DEFECT THAT COULD RESULT IN INJURY OR DEATH OF THE OPERATOR.



IMMEDIATELY REPORT TO YOUR SUPERVISOR ANY DEFECT OR MALFUNCTION. ANY DEFECT SHALL BE REPAIRED PRIOR TO CONTINUED USE OF THE AERIAL WORK PLATFORM.

INSPECTION AND MAINTENANCE SHOULD BE PERFORMED BY QUALIFIED PERSONNEL FAMILIAR WITH THE EQUIPMENT.

Primary Machine Components



- 1) Platform controller
- 2) Platform guard rails
- 3) Platform extension release pedal
- 4) Platform entry gate
- 5) Main Platform
- 6) Lift Cylinders
- 7) Entry ladder
- 8) Drive wheels
- 9) Emergency lowering knob
- 10) Ground Control Panel
- 11) Batteries charger
- 12) Main power switch
- 13) Steer wheels
- 14) Scissor
- 15) Safety chock
- 16) Lanyard anchorage points
- 17) Platform extension
- 18) Manual storage container

Art_5545

Emergency Systems and Procedures



IF THE CONTROL SYSTEM FAILS WHILE THE PLATFORM IS ELEVATED, HAVE AN EXPERIENCED OPERATOR USE THE EMERGENCY LOWERING PROCEDURE TO SAFELY LOWER THE PLATFORM.

DO NOT ATTEMPT TO CLIMB DOWN ELEVATING ASSEMBLY.

Emergency Stop



ART_3353

The machine is equipped with an EMERGENCY STOP switch at the base controls and the platform control box.

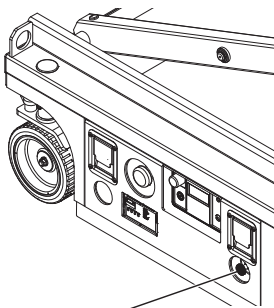
- Press the EMERGENCY STOP switch at any time to stop all machine functions.
- Pull switch to reset.
- Either switch will stop all machine functions.
- Both switches must be reset or machine will not operate.

Emergency Lowering



IF THE CONTROL SYSTEM FAILS WHILE THE PLATFORM IS ELEVATED, USE THE EMERGENCY LOWERING PROCEDURE TO SAFELY LOWER THE PLATFORM.

DO NOT CLIMB DOWN THE ELEVATING ASSEMBLY OR EXIT THE PLATFORM.



Emergency Lowering Knob

ART_4986

The Emergency Lowering System is used to lower the platform in case of power failure.

To lower the platform, pull the Emergency Lowering Knob, located near the Base Control panel.

Free-Wheel Configuration For Winching or Towing

RUNAWAY HAZARD!



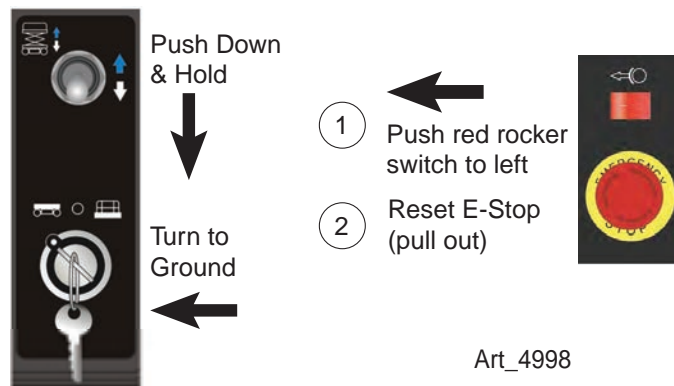
AFTER RELEASING THE BRAKES THERE IS NOTHING TO STOP MACHINE TRAVEL. MACHINE WILL ROLL FREELY ON SLOPES.

ALWAYS CHOCK THE WHEELS BEFORE MANUALLY RELEASING THE BRAKES.

The machine can be winched or towed short distances at speeds not to exceed 2.5 MPH (4 km/h). Before towing or winching the machine, it is necessary to release the brakes. Reset the brakes after towing or winching.

Disengage Brakes Before Towing Or Winching

1. Chock the wheels.
2. Turn the Key Switch to the OFF position.
3. Turn the red Emergency Stop button clockwise to the on position at both the ground and platform controls.
4. At the Ground Controls panel, push red rocker switch to the left & Push Down and Hold The Lift/Lower Switch to the Lower Position
5. Pull or turn the Red Emergency Stop button clockwise to the ON position at the ground controls. An alarm will sound, signaling that the brakes have been released.



Resetting Brakes

Press the Emergency Stop button, then push the Brake Release Switch to the right to reset the brake.



BE SURE THAT THE BRAKES ARE ENGAGED BEFORE REMOVING THE WHEEL CHOCKS.

Lift And Support The Machine



DEATH OR SERIOUS PERSONAL INJURY MAY RESULT FROM THE USE OF SUBSTANDARD LIFTING DEVICES AND/OR JACK STANDS. ENSURE THAT ALL LIFTING DEVICES AND JACK STANDS ARE OF ADEQUATE CAPACITY AND IN GOOD WORKING CONDITION BEFORE USE.

The following are needed to safely lift and support the machine;

- A jack with a lifting capacity of two (2) tons or more.
- Jack stands with a rating of two (2) tons or more.

To Raise The Machine

1. Move machine to a firm level surface capable of supporting the weight of the machine.
2. Chock tires on one end of machine and raise the other end of machine.
3. Position a jack at the end of the machine to be lifted, under a solid lifting point in the center of the frame.
4. Raise the machine and place two (2) suitable jack stands under solid support points at the outer ends of the frame.
5. Lower the machine to rest on the jack stands and inspect for stability.

To Lower The Machine

1. Raise machine slightly and remove jack stands.
2. Lower the machine and remove the jack.
3. Remove chocks.

General Machine Maintenance

Instructions in this portion of the manual are to be used in conjunction with the Pre-Start, Frequent and Annual Inspection checklists found in this machine's Operator's Manual.

IMPORTANT: Scheduled maintenance inspection checklists are included in the Operator's Manual for use only by qualified service technicians. Only qualified service technicians may perform repairs to the machine. After repairs are completed, the operator must perform a Pre-Start Inspection before proceeding to the Functions Test.



HYDRAULIC FLUID UNDER PRESSURE CAN PENETRATE AND BURN SKIN, DAMAGE EYES, AND MAY CAUSE SERIOUS INJURY, BLINDNESS, AND DEATH. REPAIR LEAKS IMMEDIATELY. FLUID LEAKS UNDER PRESSURE MAY NOT ALWAYS BE VISIBLE. CHECK FOR PIN HOLE LEAKS WITH A PIECE OF CARDBOARD, NOT YOUR HAND.



NEVER PERFORM WORK OR INSPECTION ON THE MACHINE WITH THE PLATFORM ELEVATED WITHOUT FIRST BLOCKING THE SCISSOR ASSEMBLY WITH THE MAINTENANCE LOCK (SEE THE INTRODUCTION PORTION OF THIS MANUAL).

PERFORM SCHEDULED MAINTENANCE AT RECOMMENDED INTERVALS. FAILURE TO PERFORM SCHEDULED MAINTENANCE AT RECOMMENDED INTERVALS MAY RESULT IN A DEFECTIVE OR MALFUNCTIONING MACHINE AND MAY RESULT IN INJURY OR DEATH OF THE OPERATOR. KEEP MAINTENANCE RECORDS CURRENT AND ACCURATE.

IMMEDIATELY REPORT ANY DAMAGE, DEFECT, UNAUTHORIZED MODIFICATION OR MALFUNCTION TO YOUR SUPERVISOR. ANY DEFECT MUST BE REPAIRED PRIOR TO CONTINUED USE. DO NOT USE A DAMAGED, MODIFIED OR MALFUNCTIONING MACHINE.

Never leave hydraulic components or hoses open. Plug all hoses and fitting immediately after disassembly to protect the system from outside contamination (including rain).

Never open a hydraulic system when there are contaminants in the air.

Always clean the surrounding area before opening hydraulic systems.



Use only recommended lubricants. Improper lubricants or incompatible lubricants may cause as much damage as no lubrication.

Watch for makeshift "fixes" which can jeopardize safety as well as lead to more costly repair.

Inspection and maintenance should be performed by qualified personnel familiar with the equipment.

Pre-Start Inspection Checklist

Items on this checklist should be inspected before each work shift. Refer to the Operator's Manual.

30-Day Service

The 30 day maintenance procedure is a **one-time** procedure to be performed after the first 30 days or 40 hours of usage.

Maintaining the tires and wheels in good condition is essential to safe operation and good performance. Tire and/or wheel failure could result in a machine tip-over. Component damage may also result if problems are not discovered and repaired in a timely fashion.

1. Check the tire surface and sidewalls for cuts, cracks, punctures and unusual wear.
2. Check each wheel for damage, bends and cracks.
3. Remove the wheel covers and check each center lock nut for proper torque and presence of cotter pin.

Front

Castle Nut Torque, Dry	166.7 ft-lbs / 226 Nm
Castle Nut Torque, Lubricated	125.4 ft-lbs / 170 Nm

Back

Locknut	100 ft-lbs / 135 Nm
---------	---------------------

Frequent Inspection Checklist



THIS CHECKLIST MUST BE USED AT 3-MONTH INTERVALS OR EVERY 150 HOURS OF MACHINE USE, WHICHEVER OCCURS FIRST. FAILURE TO DO SO COULD RESULT IN DEATH OR SERIOUS INJURY.

Frequent Maintenance Inspections should be conducted by qualified service technicians only. Photocopy the Frequent Inspection Checklist page from the Operator's Manual to keep record of this inspection. Keep inspections records up to date. Record and report all discrepancies to your supervisor.

Perform all checks listed on Pre-Start Inspection, then proceed with the following checks.

Hydraulic Fluid

Inspect the condition of hydraulic fluid in the reservoir. Oil should be a clear and amber in color.

Batteries

Proper battery condition is essential to good machine performance and operational safety. Improper or damaged cables and connections can result in component damage and hazardous conditions.



ELECTROCUTION / BURN HAZARD. CONTACT WITH ELECTRICALLY CHARGED CIRCUITS COULD RESULT IN DEATH OR SERIOUS INJURY.

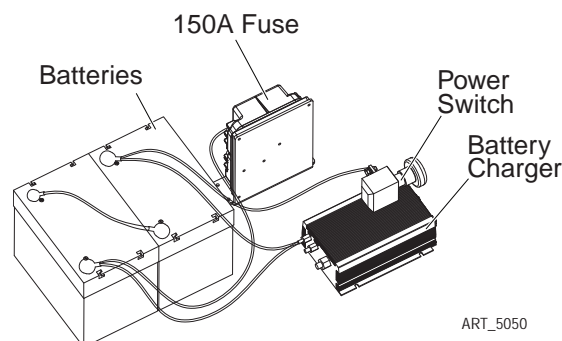
REMOVE ALL RINGS, WATCHES AND OTHER JEWELRY.



BODILY INJURY HAZARD. BATTERIES CONTAIN ACID. AVOID SPILLING OR CONTACTING BATTERY ACID. NEUTRALIZE BATTERY ACID SPILLS WITH BAKING SODA AND WATER.

1. Put on protective clothing and eye wear.
2. Slide out the component tray from the chassis.
3. Be sure that the battery cable connections are free of corrosion.

NOTE: Adding terminal protectors and a corrosion preventative sealant will help eliminate corrosion on the battery terminals and cables.



4. Be sure that the battery retainers and cable connections are tight.
5. Fully charge the batteries. Allow the batteries to rest 24 hours before performing this procedure to allow the battery cells to equalize.
6. Check each battery pack and verify that the batteries are wired correctly.
7. Inspect the battery charger plug and pigtail for damage or excessive insulation wear. Replace as required.
8. Connect the battery charger to a properly grounded 110 - 230V / 50 - 60 Hz single phase AC power supply.
 - **Result:** The charger should operate and begin charging the batteries.
 - **Result:** If, simultaneously, the charger alarm sounds and the LEDs blink, correct the charger connections at the fuse and battery. The charger will then operate correctly and begin charging the batteries.

NOTE: For best results, use an extension cord of adequate size with a length no longer than 50 ft / 15m.

If you have any further questions regarding the battery charger operation, please contact the MEC Customer Service.

Electrical Wiring

Maintaining electrical wiring in good condition is essential to safe operation and good machine performance. Failure to find and replace burnt, chafed, corroded or pinched wires could result in unsafe operating conditions and may cause component damage.



ELECTROCUTION / BURN HAZARD. CONTACT WITH ELECTRICALLY CHARGED CIRCUITS COULD RESULT IN DEATH OR SERIOUS INJURY.

REMOVE ALL RINGS, WATCHES AND OTHER JEWELRY.

1. Inspect the following areas for burnt, chafed, corroded and loose wires:
 - Ground control panel
 - Hydraulic power unit module tray
 - Platform controls
2. Turn the key switch to ground control and turn the red Emergency Stop button clock-wise to the on position at both the ground and platform controls
3. Raise the platform approximately 8 ft / 2.5 m from the ground.
4. Lift the safety arm, move it to the center of the scissor arm and rotate up to a vertical position.
5. Lower the platform onto the safety arm.



CRUSHING HAZARD. KEEP HANDS CLEAR OF THE SAFETY ARM WHEN LOWERING THE PLATFORM.

6. Inspect the center chassis area and scissor arms for burnt, chafed and pinched cables.
7. Inspect the following areas for burnt, chafed, corroded, pinched and loose wires:
 - Scissor arms
 - ECU to platform controls

- Power to platform wiring
8. Inspect for a liberal coating of dielectric grease in the following locations:
 - Between the ECU and platform controls
 - All wire harness connectors Level sensor
 9. Raise the platform and return the safety arm to the stowed position.
 10. Lower the platform to the stowed position and turn the machine off.

Tires And Wheels

Maintaining the tires and wheels in good condition is essential to safe operation and good performance. Tire and/or wheel failure could result in a machine tip-over. Component damage may also result if problems are not discovered and repaired in a timely fashion.

Check the tire surface and sidewalls for cuts, cracks, punctures and unusual wear.

Check each wheel for damage, bends and cracks.

Remove the wheel covers and check each center lock nut for proper torque and presence of cotter pin.

Front		Back	
Castle Nut Torque, Dry	166.7 ft-lbs / 226 Nm	Locknut	100 ft-lbs / 135 Nm
Castle Nut Torque, Lubricated	125.4 ft-lbs / 170 Nm		

Emergency Stop

A properly functioning Emergency Stop system is essential for safe machine operation. An improperly operating red Emergency Stop button will fail to shut off power and stop all machine functions, resulting in a hazardous situation.

As a safety feature, selecting and operating from the ground controls will override all platform controls except the platform red Emergency Stop button.

1. Turn the key switch to ground control and turn the red Emergency Stop button clockwise to the on position at both the ground and platform controls.
2. Push in the red Emergency Stop button at the ground controls to the off position.
 - **Result:** No machine functions should operate.
3. Turn the key switch to platform control and turn the red Emergency Stop button clockwise to the on position at both the ground and platform controls.
4. Push in the red Emergency Stop button at the platform controls to the off position.
 - **Result:** No machine functions should operate.

NOTE: The red Emergency Stop button at the ground controls will stop all machine operation, even if the key switch is switched to platform control.

Key Switch

Proper key switch action and response is essential to safe machine operation. The machine can be operated from the ground or platform controls and the activation of one or the other is accomplished with the key switch. Failure of the key switch to activate the appropriate control panel could cause a hazardous operating situation.

Perform this procedure from the ground using the platform controls. Do not stand in the platform.

1. Turn the red Emergency Stop button clockwise to the on position at both the ground and platform controls.
2. Turn the key switch to platform control.
3. Check the platform up/down function from the ground controls.
 - **Result:** The machine functions should not operate.
4. Turn the key switch to ground control.
5. Check the machine functions from the platform controls.
 - **Result:** The machine functions should not operate.
6. Turn the key switch to the off position.
 - **Result:** No function should operate.

Horn

The horn is activated at the platform controls and sounds at the ground as a warning to ground personnel. An improperly functioning horn will prevent the operator from alerting ground personnel of hazards or unsafe conditions.

1. Turn the key switch to platform control and turn the red Emergency Stop button clockwise to the on position at both the ground and platform controls.
2. Push down the horn button at the platform controls.
 - **Result:** The horn should sound.

Drive Brake

Proper brake action is essential to safe machine operation. The drive brake function should operate smoothly, free of hesitation, jerking and unusual noise. Hydraulically released individual wheel brakes can appear to operate normally when not fully operational.

Perform this procedure with the machine on a firm level surface that is free of obstructions, with the platform extension deck fully retracted and the platform in the stowed position.

1. Mark a test line on the ground for reference.
2. Turn the key switch to platform control and turn the red Emergency Stop button clockwise to the on position at both the ground and platform controls.
3. Press the drive function select button.
4. Choose a point on the machine; i.e., contact patch of a tire, as a visual reference for use when crossing the test line.
5. Bring the machine to top drive speed before reaching the test line. Release the function enable switch or the joystick when your reference point on the machine crosses the test line.
6. Measure the distance between the test line and your machine reference point.
 - **Result:** The machine stops within the specified braking distance. No action required.
 - **Result:** The machine does not stop within the specified braking distance.

NOTE: The brakes must be able to hold the machine on any slope it is able to climb.

7. Replace the brakes and repeat this procedure beginning with step 1.

Maximum Braking Distance	24 in ± 11.8 in
High Speed on paved surface	61 cm ±30 cm

Drive Speed - Stowed

Proper drive functions are essential to safe machine operation. The drive function should respond quickly and smoothly to operator control. Drive performance should also be free of hesitation, jerking and unusual noise over the entire proportionally controlled speed range.

Perform this procedure with the machine on a firm, level surface that is free of obstructions.

1. Create start and finish lines by marking two lines on the ground 40 ft /12.2 m apart.
2. Turn the key switch to platform control and turn the red Emergency Stop button clockwise to the on position at both the ground and platform controls.
3. Lower the platform to the stowed position.
4. Press the drive function select button.
5. Choose a point on the machine; i.e., contact patch of a tire, as a visual reference for use when crossing the start and finish lines.
6. Bring the machine to top drive speed before reaching the start line. Begin timing when your reference point on the machine crosses the start line.
7. Continue at full speed and note the time when your reference point on the machine passes over the finish line. The time should be 9-11 sec.

Drive Speed - Raised

Proper drive functions are essential to safe machine operation. The drive function should respond quickly and smoothly to operator control. Drive performance should also be free of hesitation, jerking and unusual noise over the entire proportionally controlled speed range.

Perform this procedure with the machine on a firm, level surface that is free of obstructions.

1. Create start and finish lines by marking two lines on the ground 40 ft /12.2 m apart.
2. Turn the key switch to platform control and turn the red Emergency Stop button clockwise to the on position at both the ground and platform controls.
3. Press the lift function select button.
4. Press and hold the function enable switch on the joystick.
5. Raise the platform approximately 4 ft /1.2 m from the ground.
6. Press the drive function select button.
7. Choose a point on the machine; i.e., contact patch of a tire, as a visual reference for use when crossing the start and finish lines.
8. Bring the machine to top drive speed before reaching the start line. Begin timing when your reference point on the machine crosses the start line.
9. Continue at full speed and note the time when your reference point on the machine passes over the finish line. The time should be 35-40 sec.

Drive Speed - Slow

Proper drive functions are essential to safe machine operation. The drive function should respond quickly and smoothly to operator control. Drive performance should also be free of hesitation, jerking and unusual noise over the entire proportionally controlled speed range.

Perform this procedure with the machine on a firm, level surface that is free of obstructions.

1. Create start and finish lines by marking two lines on the ground 40 ft /12.2 m apart.
2. Turn the key switch to platform control and turn the red Emergency Stop button clockwise to the on position at both the ground and platform controls.
3. Lower the platform to the stowed position.
4. Press the slow speed select button.
5. Choose a point on the machine; i.e., contact patch of a tire, as a visual reference for use when crossing the start and finish lines.
6. Bring the machine to top drive speed before reaching the start line. Begin timing when your reference point on the machine crosses the start line.
7. Continue at full speed and note the time when your reference point on the machine passes over the finish line. The time should be 18-22 sec.

Hydraulic Oil Analysis

Replacement or testing of the hydraulic oil is essential for good machine performance and service life. Dirty oil may cause the machine to perform poorly and continued use may cause component damage. Extremely dirty conditions may require oil changes to be performed more often.

Before replacing the hydraulic oil, the oil may be tested by an oil distributor for specific levels of contamination to verify that changing the oil is necessary.

Hydraulic oil should be tested yearly and replaced if it fails. If the hydraulic oil is not replaced at the Annual Inspection, test the oil quarterly. Replace the oil when it fails the test.

Tank Venting System

A free-breathing hydraulic tank cap is essential for good machine performance and service life. A dirty or clogged cap may cause the machine to perform poorly. Extremely dirty conditions may require that the cap be inspected more often.

1. Remove the breather cap from the hydraulic tank.
2. Check for proper venting.
 - **Result:** Air passes through the breather cap.
 - **Result:** If air does not pass through the cap, clean or replace the cap. Proceed to step 3.

NOTE: When checking for positive tank cap venting, air should pass freely through the cap.

3. Using a mild solvent, carefully wash the cap venting system. Dry using low pressure compressed air. Repeat step 2.
4. Install the breather cap onto the hydraulic tank.

Annual Inspection Checklist



THIS CHECKLIST MUST BE USED AT 12-MONTH INTERVALS OR EVERY 600 HOURS OF MACHINE USE, WHICHEVER OCCURS FIRST. FAILURE TO DO SO COULD RESULT IN DEATH OR SERIOUS INJURY.

Annual Maintenance Inspections should be conducted by qualified service technicians only. Photocopy the Annual Inspection Checklist page from the Operator's Manual to keep record of this inspection. Keep inspections records up to date. Record and report all discrepancies to your supervisor.

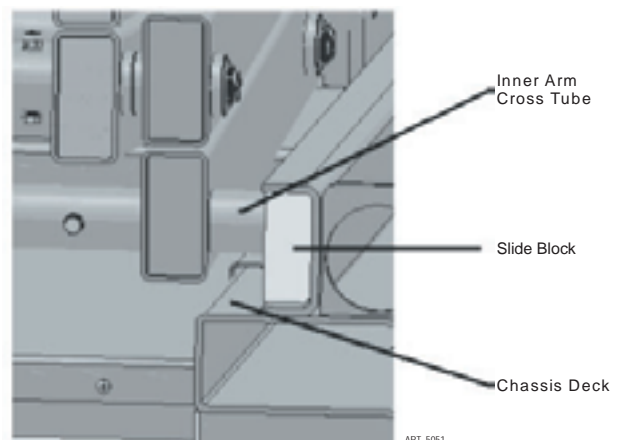
Perform all checks listed on Pre-Start Inspection and the Frequent Inspection, then check all items listed on the Annual Inspection Report. See specific instructions below.

Scissor Slide Blocks

Maintaining the condition of the scissor arm slide blocks is essential to safe machine operation. Continued use of worn out wear pads may result in component damage and unsafe operating conditions.

Perform this procedure with the platform in the stowed position.

1. Measure the distance between the number one inner arm cross tube and the chassis deck at the ground controls side of the non-steer end of the machine.
 - **Result:** The measurement is 1.18 in / 30 mm or more. Proceed to step 2.
 - **Result:** The measurement is less than 1.18 in / 30 mm. Replace both wear pads.
2. Measure the distance between the number one inner arm cross tube and the chassis deck at the battery pack side of the non-steer end of the machine.
 - **Result:** The measurement is 1.18 in / 30 mm or more. Proceed to step 3.
 - **Result:** The measurement is less than 30mm. Replace both wear pads.
3. Apply a thin layer of dry film lubricant to the area of the chassis where the scissor arm wear pads make contact.



Hydraulic Tank Breather Cap

The hydraulic tank is a vented-type tank. The breather cap has an internal air filter that can become clogged or, over time, can deteriorate. If the breather cap is faulty or improperly installed, impurities can enter the hydraulic system which may cause component damage. Extremely dirty conditions may require that the cap be inspected more often.

1. Remove and discard the hydraulic tank breather cap.
2. Install a new cap onto the tank.

Hydraulic Oil Inspection

Replacement or testing of the hydraulic oil is essential for good machine performance and service life. Dirty oil may cause the machine to perform poorly and continued use may cause component damage. Extremely dirty conditions may require oil changes to be performed more often.

Before replacing the hydraulic oil, the oil may be tested by an oil distributor for specific levels of contamination to verify that changing the oil is necessary.

Hydraulic oil should be tested yearly and replaced if it fails. If the hydraulic oil is not replaced at the Annual Inspection, test the oil quarterly. Replace the oil when it fails the test.

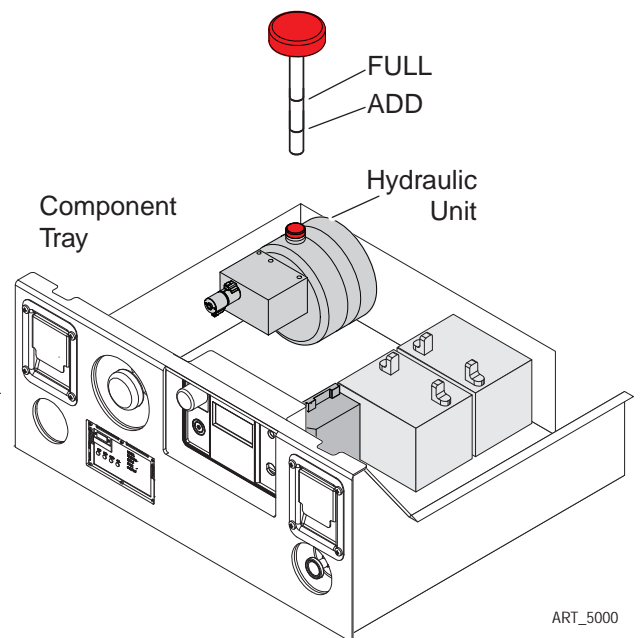
NOTE: Perform this procedure with the platform in the stowed position.

1. Slide out the Component Tray.
2. Disconnect the battery pack from the machine.

ELECTROCUTION / BURN HAZARD. CONTACT WITH ELECTRICALLY CHARGED CIRCUITS COULD RESULT IN DEATH OR SERIOUS INJURY.



REMOVE ALL RINGS, WATCHES AND OTHER JEWELRY.



ART_5000

3. Tag and disconnect the hydraulic pump outlet line and remove the line from the pump. Cap the fitting on the pump.
4. Loosen the bolts and remove the hydraulic power pack from the tray.
5. Open the oil plug of tank. Drain all of the oil into a suitable container.
6. Loosen and remove the bolts and separate the tank from the pump body.

BODILY INJURY HAZARD. SPRAYING HYDRAULIC OIL CAN PENETRATE AND BURN SKIN. LOOSEN HYDRAULIC CONNECTIONS VERY SLOWLY TO ALLOW THE OIL PRESSURE TO DISSIPATE GRADUALLY. DO NOT ALLOW OIL TO SQUIRT OR SPRAY.



7. Clean up any oil that may have spilled. Properly discard the used oil.

8. Clean the inside of the hydraulic tank using a mild solvent. Allow the tank to dry completely.
9. Install the hydraulic tank and install and tighten the hydraulic tank retaining fasteners. Torque to specification.

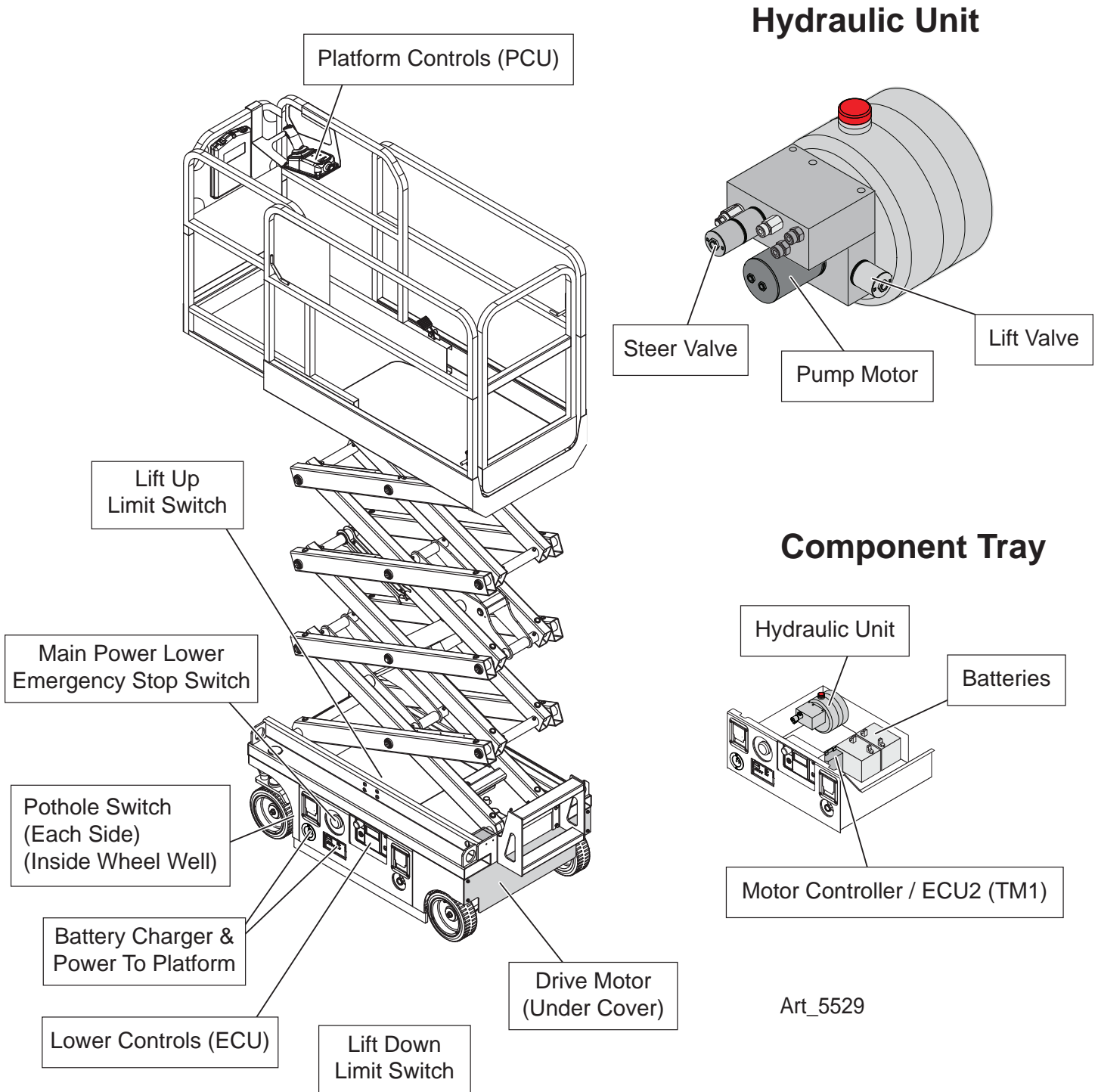
Hydraulic Tank Retaining Fasteners, Dry	35 in-lbs 4 Nm
Hydraulic Tank Drain Plug, Lubricated	26 in-lbs 3 Nm

10. Install the hydraulic power pack into the component tray. Install the fitting and hydraulic hoses onto the hydraulic power pack and torque.
11. Fill the tank with hydraulic oil to the middle of the dipstick. Do not overfill.
12. Activate the pump to fill the hydraulic system with oil and bleed the system of air.



COMPONENT DAMAGE HAZARD. THE PUMP CAN BE DAMAGED IF OPERATED WITHOUT OIL. BE CAREFUL NOT TO EMPTY THE HYDRAULIC TANK WHILE IN THE PROCESS OF FILLING THE HYDRAULIC SYSTEM. DO NOT ALLOW THE PUMP TO CAVITATE.

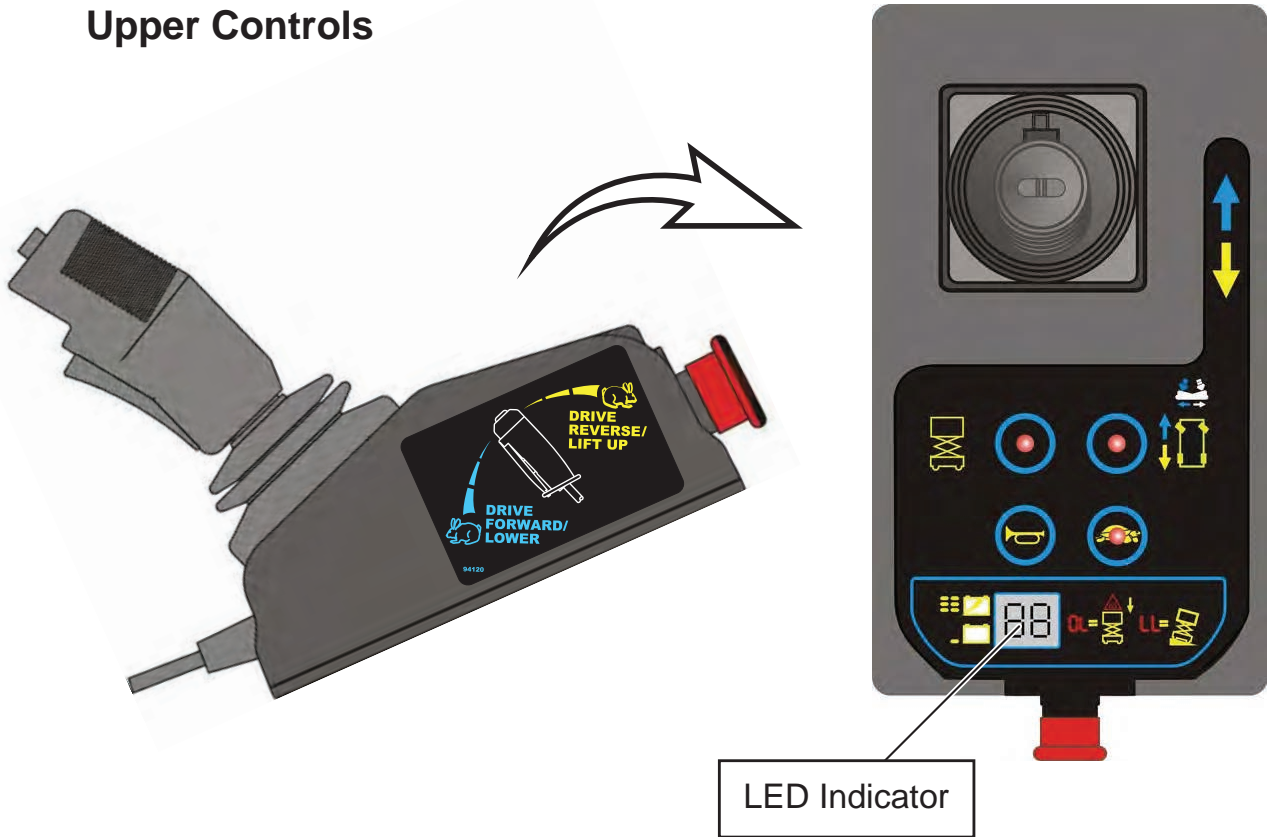
Control Component Locations



Fault Codes

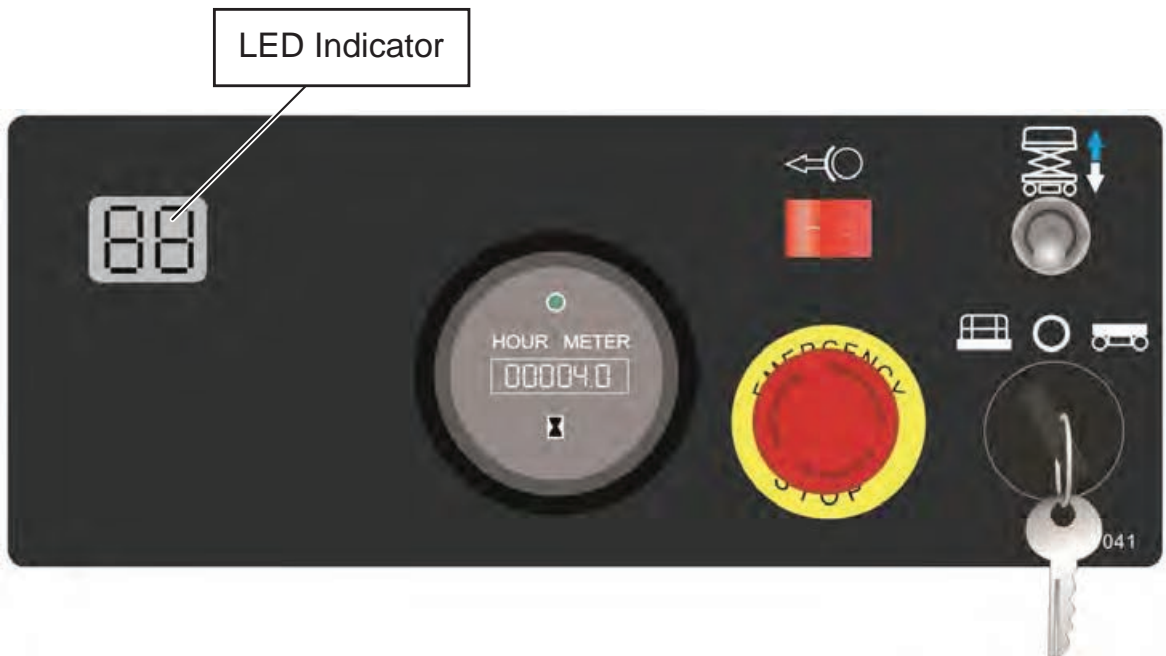
Fault Codes, when present, appear on the LED Indicator at the Upper Controls station and on the LED Screen at the Lower Controls station.

Upper Controls



Lower Controls

Art_5534



Error Indicator Readout



Art_5533

If the LED diagnostic readout displays an error code, such as LL, push in and turn the red Emergency Stop button to reset the system.

Fault	Description	Models	Solutions
01/10	System Initialization Fault	All Models	Check the ECU.
02/20	System Communication Fault	All Models	Check the platform control, wiring on platform connector, ECU, battery, and relay on ground control.
03	Invalid Option Setting	All Models	Reset the option code. See Service manual for instructions.
12	Chassis Up or Down Switch ON at power-up Fault	All Models	Check the wiring on toggle switch, and the toggle switch.
18	Pothole Guard Fault	All Models	Check the pothole board and switches. If stowed, check limit switch.
31	Pressure Sensor Fault	Micro 19	Check option code. See Service manual for instructions.
32	Angle Sensor Fault	All Models > 2020 With Overload	Check wiring to angle sensor for normal voltage range < 2020, 1.9-3.8V, then check the option code.
42	Left turn switch ON at power-up	All Models	Check the left steer button, and the platform controller.
43	Right Turn Switch ON at power-up	All Models	Check the right steer button, and the platform controller.
46	Joystick Enable Switch ON at power-up	All Models	Wait several seconds when turning on the lift, then check the joystick dead-man switch.
47	Joystick not in neutral at power-up	All Models	Check the joystick, and the platform controller.
52	Drive Forward Coil Fault	All Models	Check the option code. See Service manual for instructions.
53	Drive Reverse Coil Fault	All Models	Check the option code. See Service manual for instructions.
54	Lift Up Coil Fault	All Models	Check the lift solenoid and wiring.
55	Lift Down Coil fault	All Models	Check the down solenoid and wiring, and the scissor harness for crushed or pinched wires.
56	Right Turn Coil Fault	All Models	Check the right steering solenoid and wiring.
57	Left Turn Coil Fault	All Models	Check the left steering solenoid and wiring.
58	General Brake Coil Fault - Brakes about 46 ohms	All Models	Check the brake module and wiring, brakes and wiring, and the battery voltage.
60	Motor Controller Fault	All Models	Replace the motor controller.
61	Motor Controller Sensor Fault	All Models	Check the drive motor and wiring, and the drive motor controller and wiring.
62	Motor Controller Hardware Failsafe Fault	All Models	Cycle power, then replace the Motor Controller.
63	Motor Controller Output Fault	All Models	Check the drive motor and wiring for shorts, and the drive motor controller and wiring.

64	Motor Controller SRO Fault	All Models	Replace motor controller
65	Motor Controller Throttle Fault	All Models	Replace motor controller
66	Motor Controller Emergency Reverse Fault	All Models	Replace motor controller
67	Motor Controller HPD Fault	All Models	Replace motor controller, check contactor, replace ECU.
68	Low Voltage Fault	All Models	Check battery voltage and charge batteries if necessary, check battery connections, connection from ECU to PCU, then the voltage to the ECU and PCU.
69	High Neutral Current Fault	All Models	Motor seized - This message comes just before other faults but should be ignored in those cases.
70	Steer Input Out of Range	All Models	Check for loose wires on motor controller, replace motor controller.
71	Motor Controller Main Contactor Fault	All Models	Check wiring to contactor, white and black wire could be off, check drive motor and wiring, and motor controller and wiring. Replace contractor.
72	Motor Controller Over Voltage Fault	All Models	Check battery voltage with battery charger off, cycle power to machine, replace motor controller.
73	Motor Controller Thermal Cutback Fault	All Models	Drive/Lift Motor may be overheating so let motor cool down, cycle power to reset Motor controller, replace motor controller.
74	Motor Controller Motor Fault	All Models	Check connections at motors "motor open", cycle power to the lift, and replace motor controller.
75	Motor Controller Pump Motor Fault	All Models	Check connections to the Pump Motor, cycle power to the lift, and replace motor controller.
76	Motor Controller Left Drive Motor Fault	All Models	Check connections to the motors, cycle power to the lift, and replace motor controller.
77	Motor Controller Right Drive Motor Fault	All Models	Check connections to the motors, cycle power to the lift, and replace motor controller.
78	Pump Motor Short Fault: 0.8-1.4 ohms	All Models	Check connections to the pump motor, cycle power to the lift, and replace motor controller.
79	Left Drive Motor Short Fault	1930SE Only	Check the left drive motor and wiring, and the ZAPI drive controller and wiring.
	(Should be 0.5-2.0 ohms)	Micro 19	Swap wires on drive motors: if code changes it's in wiring or motor and if code doesn't change it's in motor controller.
80	Over 80% Load Warning	All Models	Platform is getting close to limit of weight. > 2020 with overload
81	Right Drive Motor Short	1930SE/Micro	Check the right drive motor and wiring, and motor controller and wiring.
82	Right Brake Coil - Brakes about 46 ohms	1930SE/Micro	Check battery voltage, contactor, wiring to brakes, wiring to drive motors, motor controller and wiring.
		All Models	Check battery voltage, right motor brake and wiring, brake module and wiring, and contactor.
83	Left Brake Coil - Brakes about 46 ohms	1930SE/Micro	Check battery voltage, contactor, wiring on brakes, wiring to drive motors, motor controller and wiring.
		All Models	Check battery voltage, left motor brake and wiring, brake module and wiring, and contactor.

85	Brake Release Switch Closed	1930SE/Micro	Turn brake release switch off. Replace brake release switch.
86	Raised Brake Release Fault	1930SE Only	Brake release switch engaged.
87	Brake Release Switch Fault	1930SE Only	Brake release switch open.
89	Drive Motor Field Open	All Models	Check wiring on motors and motor controller.
91	Left Drive Motor Short	All Models	Check wiring to motor and motor controller.
92	Right Drive Motor Short	All Models	Check wiring to motor and motor controller.
99	Over 99% Load Warning	All Models	Platform has reached its weight capacity.
OL	Platform Overloaded	All Models	Remove the excess load immediately. > 2020 with overload.
LL	Machine Tilted Beyond Safe Limits Fault	All Models	Check to see if machine is tilted, then check wiring to tilt sensor and the tilt sensor.
CH	NOT A FAULT CODE	All Models	Indicates that key switch is in base controls.

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Hydraulic Schematic

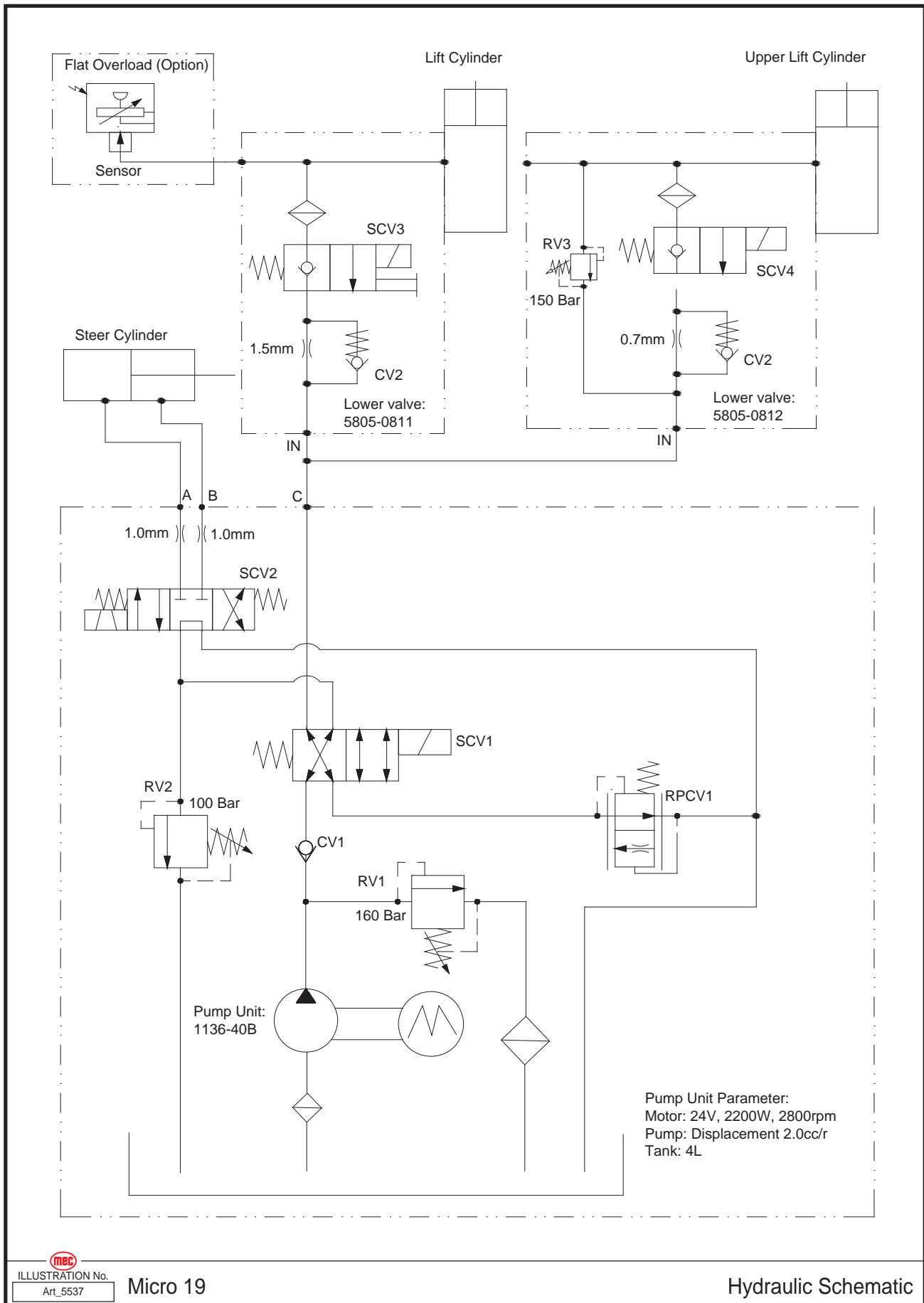
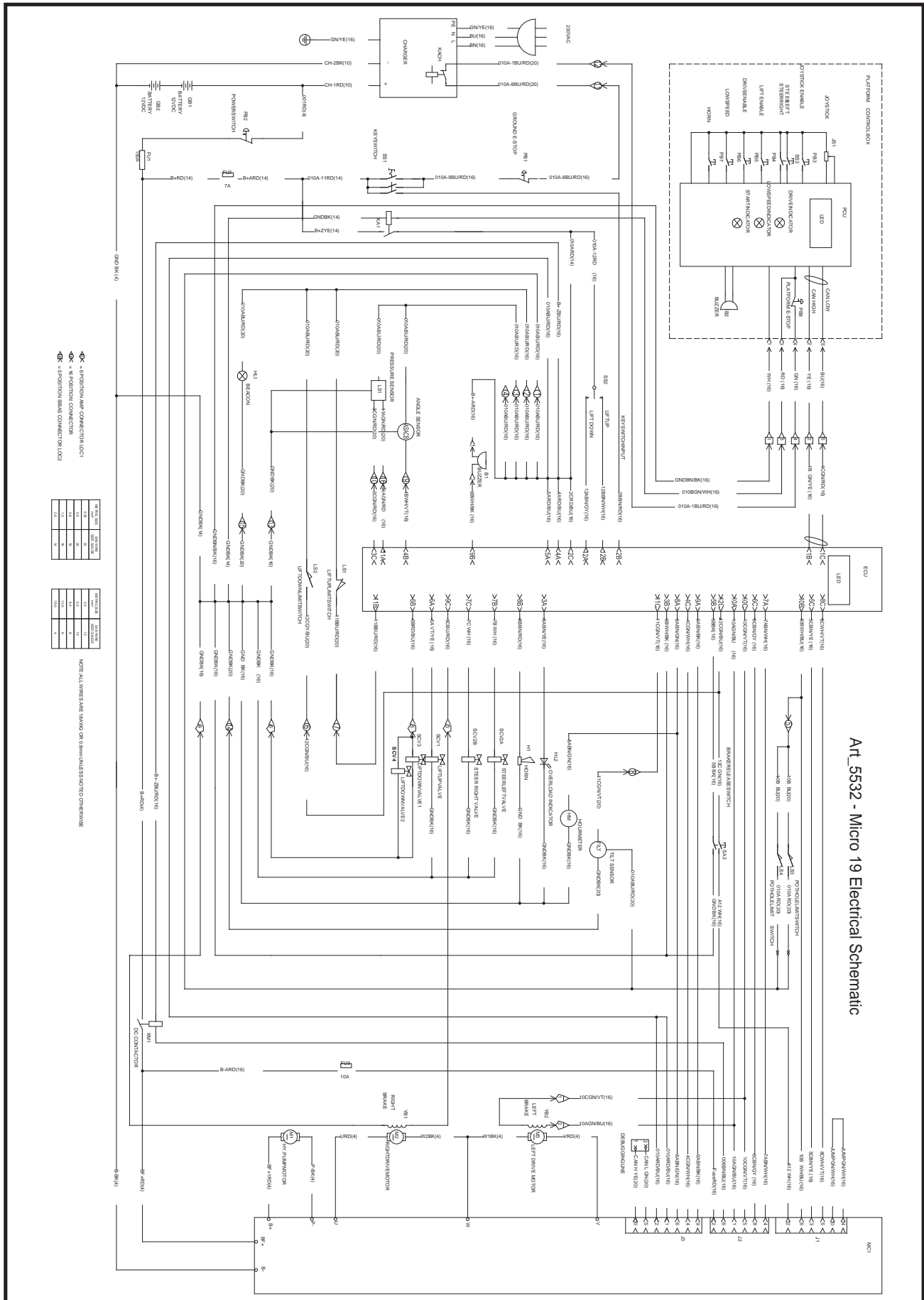


ILLUSTRATION No. **Micro 19**
 Art_5537

Hydraulic Schematic

Electrical Schematic



Parts Introduction

This Parts sections consists of illustrated parts sections and is designed to provide you, the customer, with illustrations and the list of associated parts needed to properly maintain the MEC self-propelled aerial work platform. When used in conjunction with the Service section in this manual and the Operator's Manual (provided separately), this manual will assist you in making necessary adjustments and repairs, and identifying and ordering the correct replacement parts.

All parts represented here are manufactured and supplied in accordance with MEC quality standards.

We recommend that you use genuine MEC parts to ensure proper operation and reliable performance.

To obtain maximum benefits from your MEC Aerial Work Platforms, always follow the proper operating and maintenance procedures. Only trained authorized personnel should be allowed to operate or service this machine. Service personnel should read and study the Operator's, and the Service and Parts Manuals in order to gain a thorough understanding of the unit prior to making any repairs.

Chassis Assembly - Up to Serial # 16900460

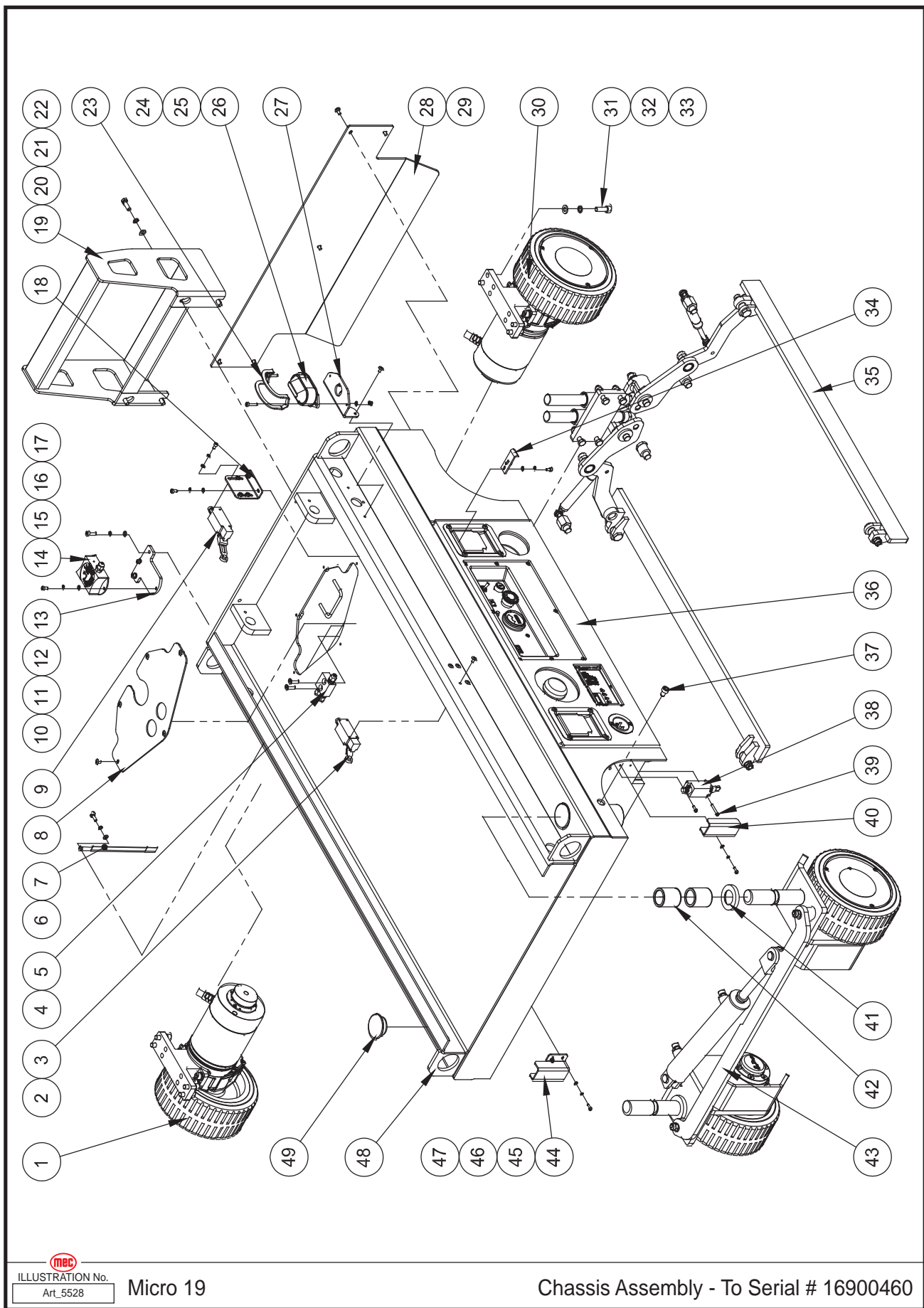



ILLUSTRATION No.
Art_5528

Micro 19

Chassis Assembly - To Serial # 16900460

Item	Part Number	Description	Qty.
1	REF	Right Drive Wheel Assembly (Refer to Page 44)	1
2	53044	SHMS M5 x 10	11
3	42400	Lift Up Limit Switch	1
4	50386	CSCS M06-1.00 x 25 Phillips	2
5	41112	Hydraulic Hoses Manifold	1
6	53051	HHMS M6 x 16	1
7	41372	Electric Bar	1
8	42401	PHP Cover Plate	1
9	42402	Lift Down Limit Switch	1
10	50000	WSHR M06 ZP Standard Flat	3
11	53046	WSHR M6 Spring Washer	3
12	50028	HHCS M06-1.00 x 20 08 ZP F	2
13	42403	Tilt Sensor Plate	1
14	41098	Level Sensor	1
15	53038	WSHR M05 Standard Flat ZP	14
16	53043	WSHR M5 Spring Washer	12
17	53044	SHMS M5 x 10	12
18	42404	Down Limit Switch Seat	1
19	42405	Ladder	1
20	50001	WSHR M08 ZP Standard Flat	4
21	53055	WSHR M8 Spring Washer	4
22	50348	HHCS M08-1.25 x 25 08 ZP F	4
23	41309	Cover	1
24	53038	Nut M5	2
25	53082	SHCS M05-.8 x 35	2
26	41310	Beacon	1
27	42406	Beacon Seat	1
28	42407	Plate	1
29	53026	BHCS M06-1.00 x 12, 10.9, ZP, F	5
30	REF	Left Drive Wheel Assembly (Refer to Page 42)	1
31	50034	HHCS M10-1.50 x 30 08 ZP F	8
32	53054	WSHR M10 Spring Washer	8
33	50002	WSHR M10 ZP Standard Flat	8
34	41196	Lock Plate	2
35	REF	Pothole Protection Assembly (Refer to Page 38)	1
36	REF	Battery Tray Module (Refer to Page 48)	1
37	41794	Screw, Steering Wheels, 1930SE	2
38	41197	Switch, Limit	2
39	53065	SHCS M04 x 30	4
40	41315	Switch Cover	1
41	41792	Seal	2
42	41595	Bearing	4
43	REF	Steer Linkage (Refer to Page 40)	1
44	41198	Cover, Switch	1
45	50284	WSHR M04 ZP Standard Flat	4
46	53062	WSHR M4 Spring Washer	4
47	53034	BHCS M04-0.70 x 12 10 ZP	8
48	42408	Chassis Weldment	1
49	41596	Cover	2

REF - Reference

Chassis Assembly - From Serial # 16900461

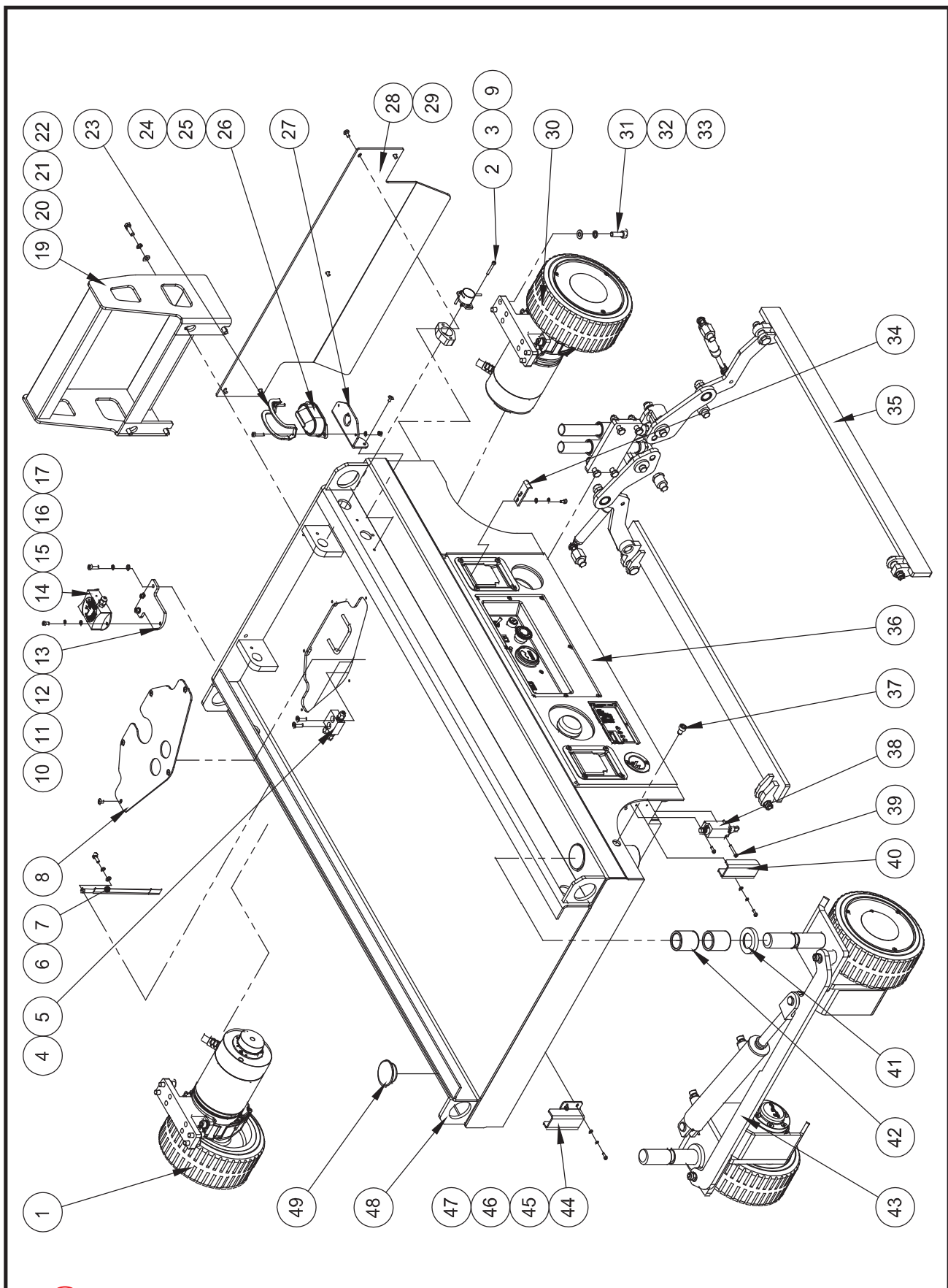



ILLUSTRATION No. Art_5527

Micro 19

Chassis Assembly - From Serial # 16900461

Item	Part Number	Description	Qty.
1	REF	Right Drive Wheel Assembly (Refer to Page 44)	1
2	41194	Support Plate	1
3	41195	Height Support Sensor	1
4	50386	CSCS M06-1.00 x 25 Phillips	2
5	41112	Hydraulic Hoses Manifold	1
6	53051	HHMS M6 x 16	1
7	41372	Electric Bar	1
8	42401	PHP Cover Plate	1
9	53065	Screw SHCS M4 x 30	2
10	50000	WSHR M06 ZP Standard Flat	3
11	53046	WSHR M6 Spring Washer	3
12	50028	HHCS M06-1.00 x 20 08 ZP F	2
13	42403	Tilt Sensor Plate	1
14	41098	Level Sensor	1
15	53038	WSHR M05 Standard Flat ZP	14
16	53043	WSHR M5 Spring Washer	12
17	53044	SHMS M5 x 10	12
--	--	--	--
19	42405	Ladder	1
20	50001	WSHR M08 ZP Standard Flat	4
21	53055	WSHR M8 Spring Washer	4
22	50348	HHCS M08-1.25 x 25 08 ZP F	4
23	41309	Cover	1
24	53038	Nut M5	2
25	53082	SHCS M05-.80 x 35	2
26	41310	Beacon	1
27	42406	Beacon Seat	1
28	42407	Plate	1
29	53026	BHCS M06-1.00 x 12, 10.9, ZP, F	5
30	REF	Left Drive Wheel Assembly (Refer to Page 42)	1
31	50034	HHCS M10-1.50 x 30 08 ZP F	8
32	53054	WSHR M10 Spring Washer	8
33	50002	WSHR M10 ZP Standard Flat	8
34	41196	Lock Plate - To Serial # 16908454	2
	43978	Lock Plate - From Serial # 16908455	2
35	REF	Pothole Protection Assembly (Refer to Page 38)	1
36	REF	Battery Tray Module (Refer to Page 48)	1
37	41794	Screw, Steering Wheels, 1930SE	2
38	41197	Switch, Limit	2
39	53065	SHCS M04 x 30	4
40	41315	Switch Cover	1
41	41792	Seal	2
42	41595	Bearing	4
43	REF	Steer Linkage (Refer to Page 40)	1
44	41198	Cover, Switch	1
45	50284	WSHR M04 ZP Standard Flat	4
46	53062	WSHR M4 Spring Washer	4
47	53034	BHCS M04-0.70 x 12 10 ZP	8
48	42408	Chassis Weldment	1
49	41596	Cover	2

REF - Reference

Pothole Protection Assembly

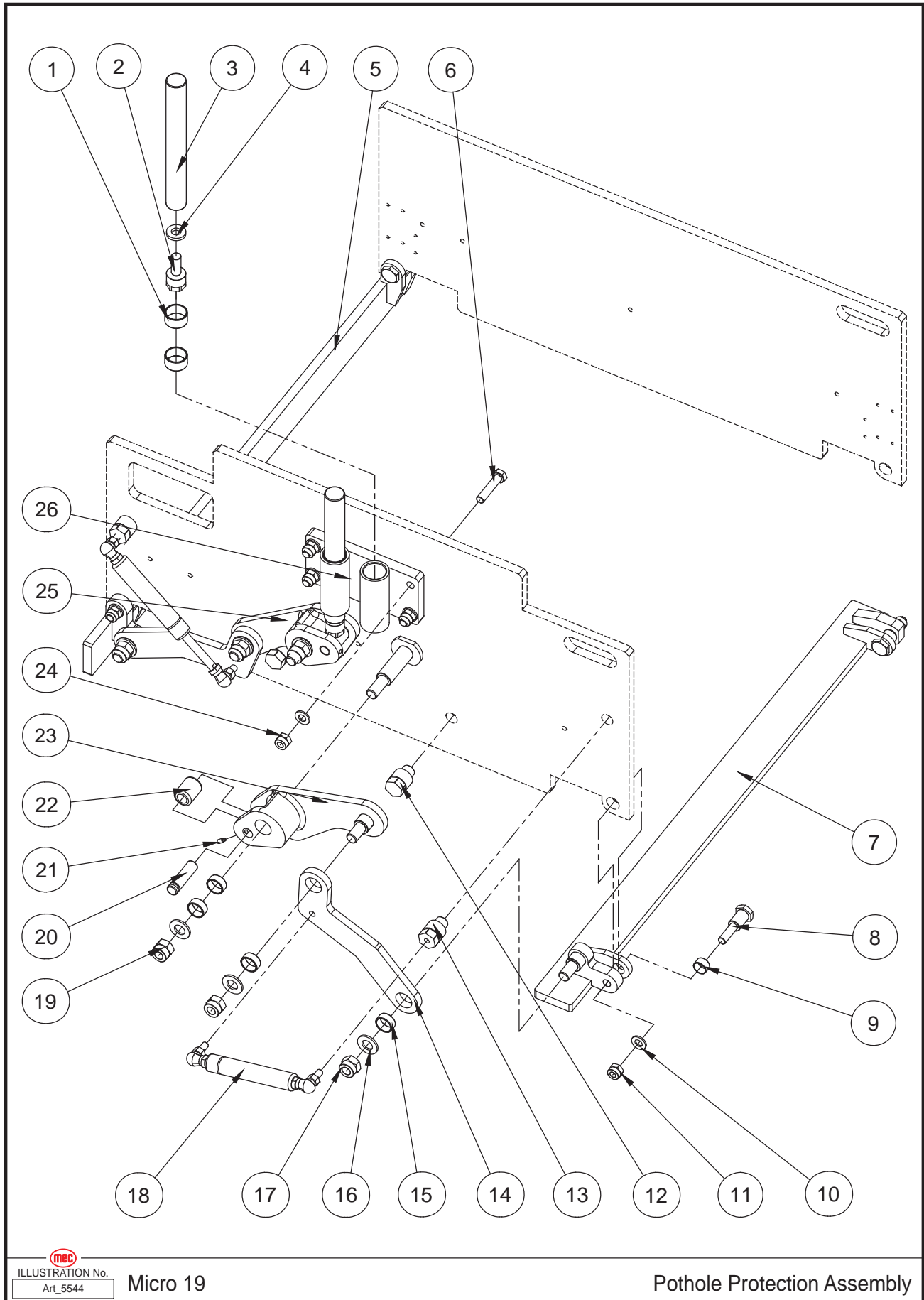



ILLUSTRATION No.
Art_5544

Micro 19

Pothole Protection Assembly

Item	Part Number	Description	Qty.
1	41203	Bearing, (PHP Plunger)	4
2	41204	Pressure Head	2
3	41205	Pressure Lever	2
4	41206	Adjusting Washer	2
5	42409	PHP Guard Plate	1
6	50031	HHCS M08-1.25 x 25 08 ZP F	4
7	42410	PHP Guard Plate	1
8	41209	Cross Board Annul (Axle, PHP)	4
9	41210	Bearing, Axle	4
10	50002	WSHR M10 ZP Standard Flat	7
11	50049	NNYL M10 x 1.50 08 ZP Nylon Inse	4
12	41211	Limit, Annul (Pothole Bar)	2
13	41212	Gas Pole Annul (PHP Pivot)	2
14	42411	PHP Linkage Arm	2
15	41214	Bearing (PHP Pivot BNG)	8
16	53049	WSHR M14 Flat	6
17	50303	NNYL M14 x 2.00 10 ZP Nylon Inse	4
18	41215	Gas Spring	2
19	50303	NNYL M14 x 2.00 10 ZP Nylon Inse	2
20	41216	Wheel Annul (PHP Roller Axle)	2
21	53056	HHMS M5 x 12	2
22	41217	Wheel (PHP Roller)	2
23	41319	Mid Linkage Weldment	1
24	50049	NNYL M10 x 1.50 08 ZP Nylon Inse	4
25	41320	Mid Linkage Weldment	1
26	41220	Press Axes Seat (PHP Housing)	1

Steer Linkage

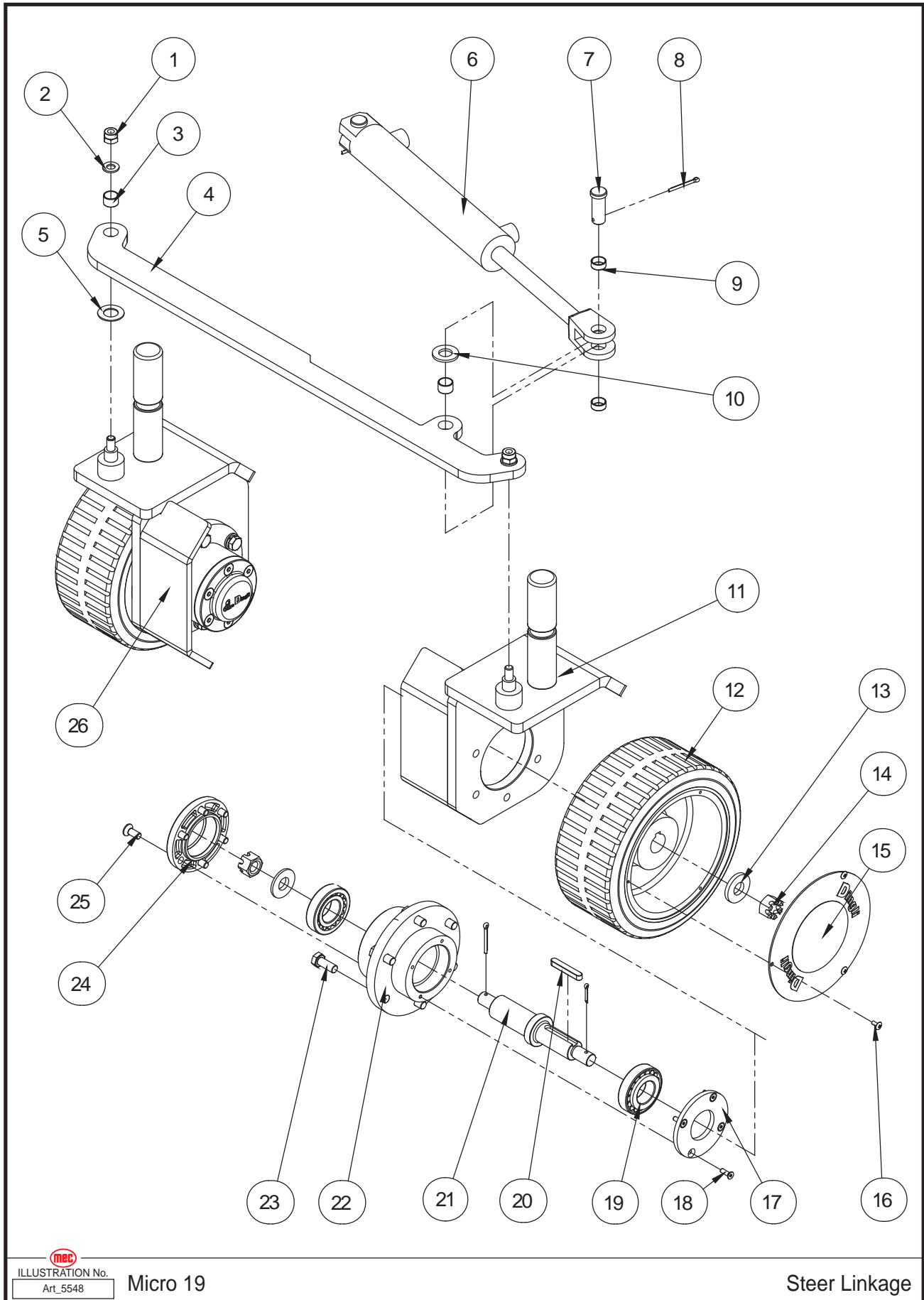


 ILLUSTRATION No. **Micro 19**
Art_5548

Steer Linkage

Item	Part Number	Description	Qty.
1	50049	NNYL M10 x 1.50 08 ZP Nylon Nut	2
2	50002	WSHR M10 ZP Standard Flat Washer	2
3	41210	Bearing, Tie Rod Bushing	4
4	42412	Tie Rod	1
5	41222	Washer, Thrust	2
6	41223	Steering Cylinder	1
7	41321	Pin	2
8	41322	Pin	6
9	41225	Bearing, Steer Cylinder	4
10	41226	Washer, Thrust	2
11	42413	Yoke, Left	1
12	42414	Wheel	2
13	41235	Washer, Wheel Shaft	4
14	41236	Nut M16 x 1.5 (Castle Nut)	4
15	41323	Cover Wheel	2
16	50321	Screw	6
17	41230	Shaft End Baffle	2
18	53118	Screw	8
19	41231	Bearing	4
20	42498	Key	2
21	42415	Shaft, Wheel	2
22	41234	Hub, Wheel Connecting	2
23	50033	HHCS M10-1.50 x 25 08 ZP F	12
24	41237	Plate, Shaft End Cover	2
25	50457	Screw	12
26	42416	Yoke, Right	1

Left Drive Wheel Assembly - To Serial #16907560

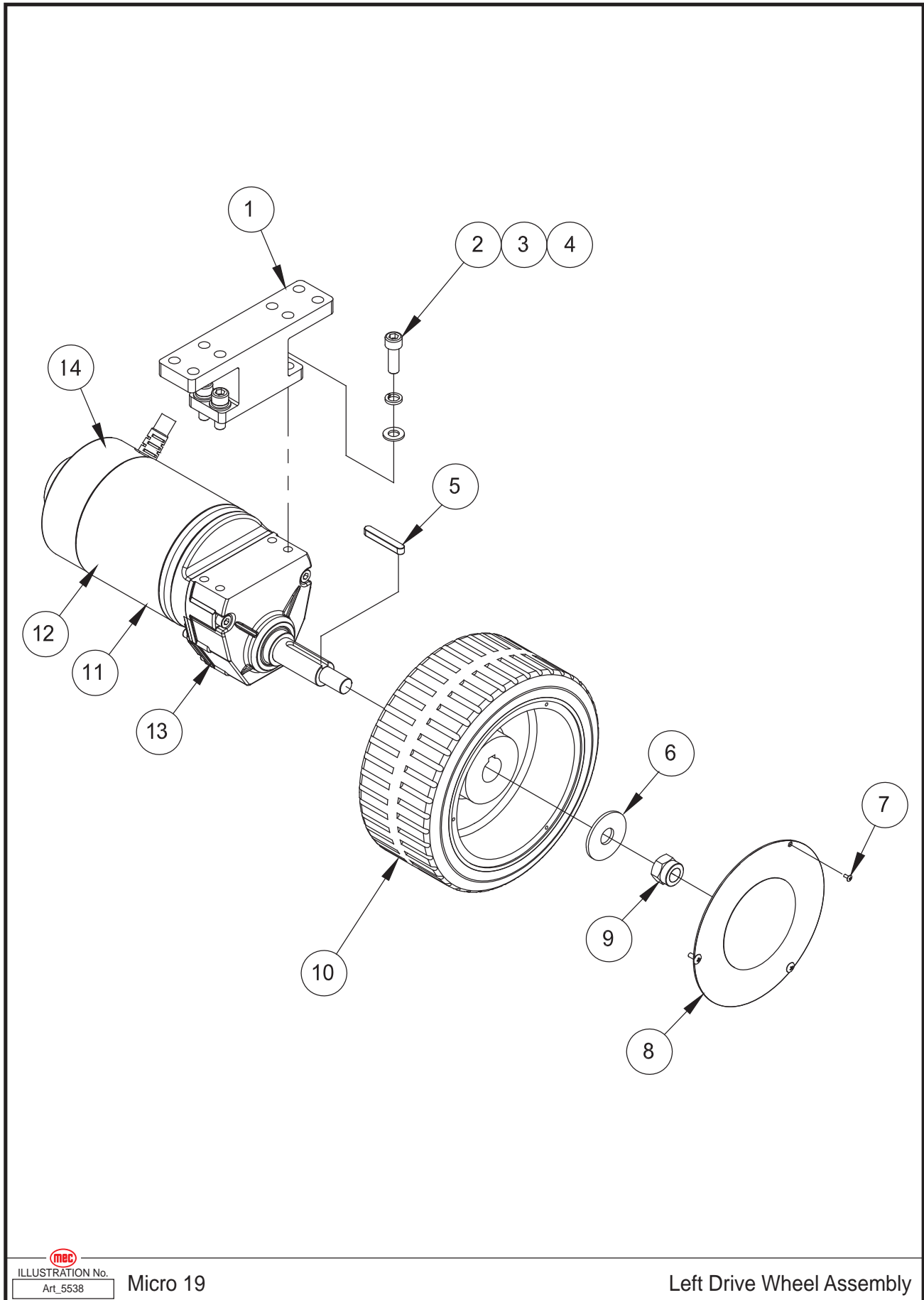


 ILLUSTRATION No. **Micro 19**
Art_5538

Left Drive Wheel Assembly

Item	Part Number	Description	Qty.
1	41239	Support, Motor	1
2	42417	Screw HX-SHCS 3/8-24 x 1.25-N	4
3	53054	WSHR M10 Spring Washer	4
4	50002	WSHR M10 ZP Standard Flat	4
5	42498	Key	1
6	50004	WSHR M16 ZP Standard Flat (Din 125)	1
7	50321	BHCS M04-0.70 x 10 10 BK	3
8	41323	Cover, Wheel	1
9	41236	Nut M16 x 1.5 (Castle Nut)	1
10	42414	Wheel	1
11	42419	Drive Motor Assembly, LH	1
12	42890	Motor	1
13	42887	Reducer (Gearbox)	1
14	42889	Brake	1
--	42883	Connector, Drive Motor	1

Right Drive Wheel Assembly - To Serial #16907560

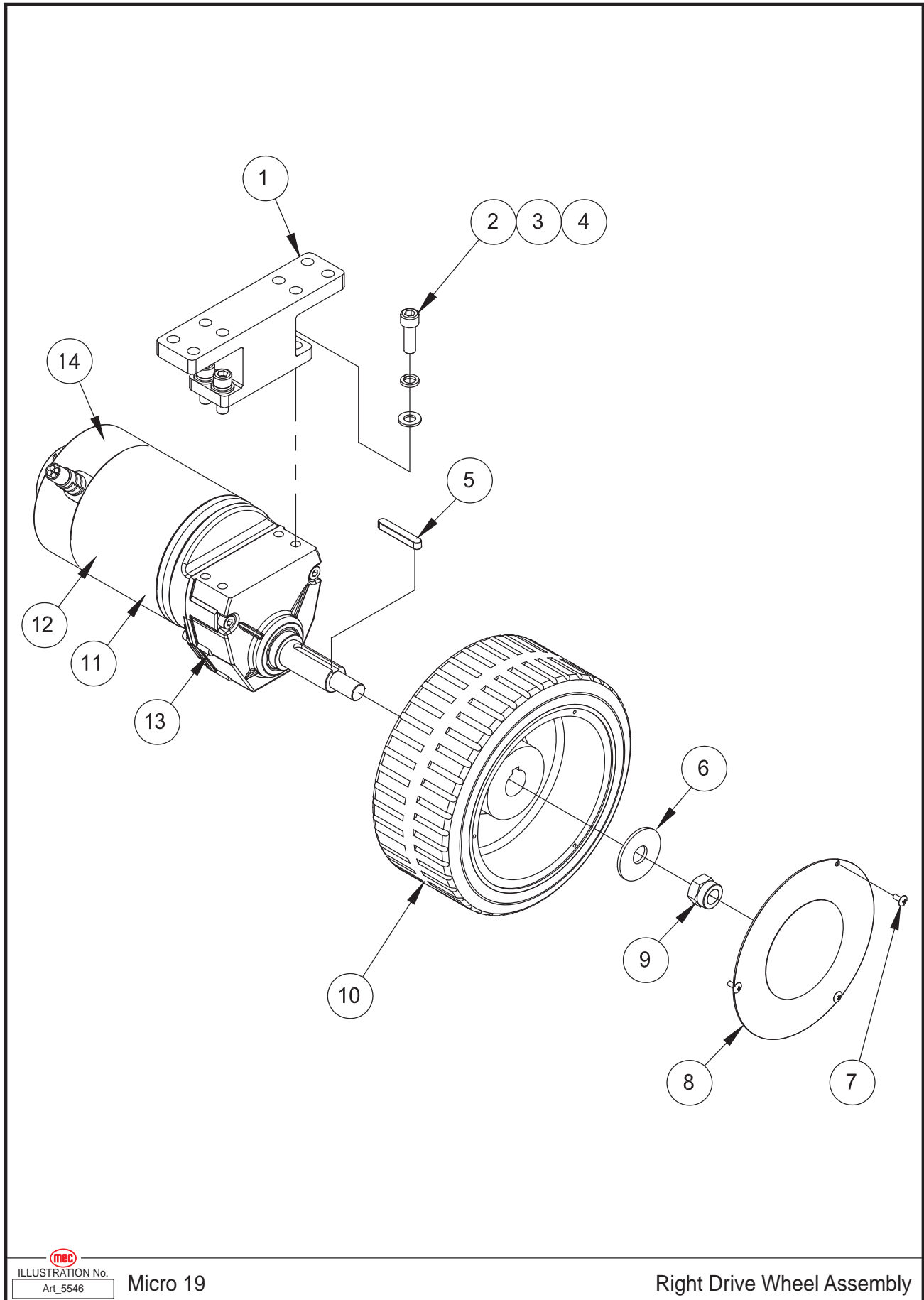


 ILLUSTRATION No. **Micro 19**
Art_5546

Right Drive Wheel Assembly

Item	Part Number	Description	Qty.
1	41239	Support, Motor	1
2	42417	Screw HX-SHCS 3/8-24 x 1.25-N	4
3	53054	WSHR M10 Spring Washer	4
4	50002	WSHR M10 ZP Standard Flat	4
5	42498	Key	1
6	50004	WSHR M16 ZP Standard Flat (Din 125)	1
7	50321	BHCS M04-0.70 x 10 10 BK	3
8	41323	Cover, Wheel	1
9	41236	Nut M16 x 1.5 (Castle Nut)	1
10	42414	Wheel	1
11	42421	Drive Motor Assembly, RH	1
12	42886	Motor	1
13	42887	Reducer (Gearbox)	1
14	42889	Brake	1
--	42883	Connector, Drive Motor	1

Drive Wheel Assembly - From Serial #16907561

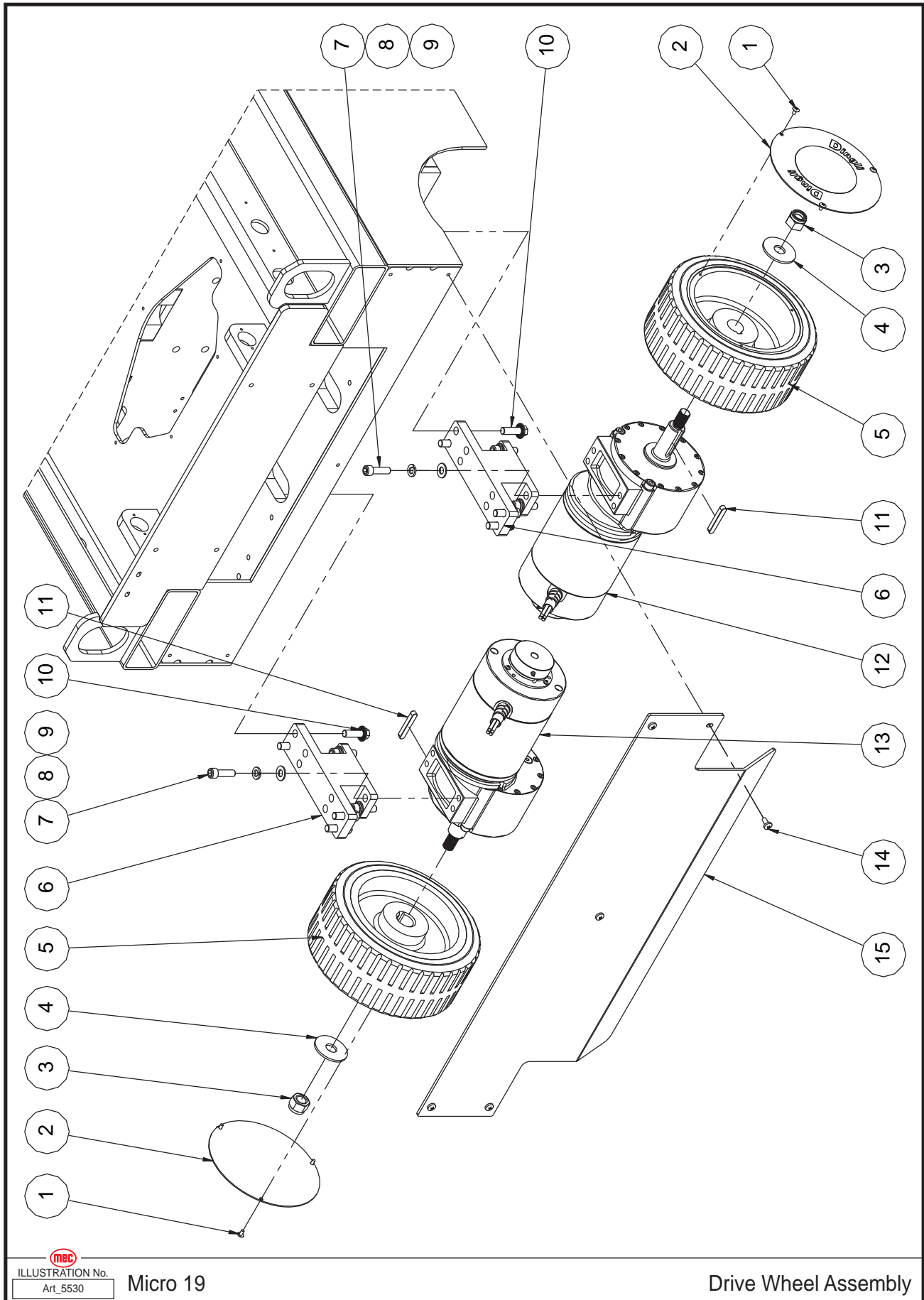


 ILLUSTRATION No. **Micro 19**
Art_5530

Drive Wheel Assembly

Item	Part Number	Description	Qty.
1	53263	THMS M04-0.70 x 8	6
2	41323	Cover	2
3	53313	NNYL M16 x 1.50	2
4	53314	WSHR M16 Flat Fender	2
5	42414	Wheel	2
6	41239	Support	2
7	53315	SHCS 3/8-24 x 1 1/4	8
8	53316	WSHR 3/8 Spring Washer	8
9	53317	WSHR 3/8 Standard Flat Narrow	8
10	53268	HHCS M10-1.50 x 30 Serrated Flange	8
11	41232	Key	2
12	42421	Right Drive Motor Assembly	1
--	42886	Right Motor	1
--	42889	Brake	1
--	42887	Reducer	1
13	42419	Left Drive Motor Assembly	1
--	42890	Left Motor	1
--	42889	Brake	1
--	42887	Reducer	1
14	53318	PHMS M06-1.00 x 12	5
15	42407	Plate	1
--	42883	Connector, Drive Motor	1

Battery Tray Module

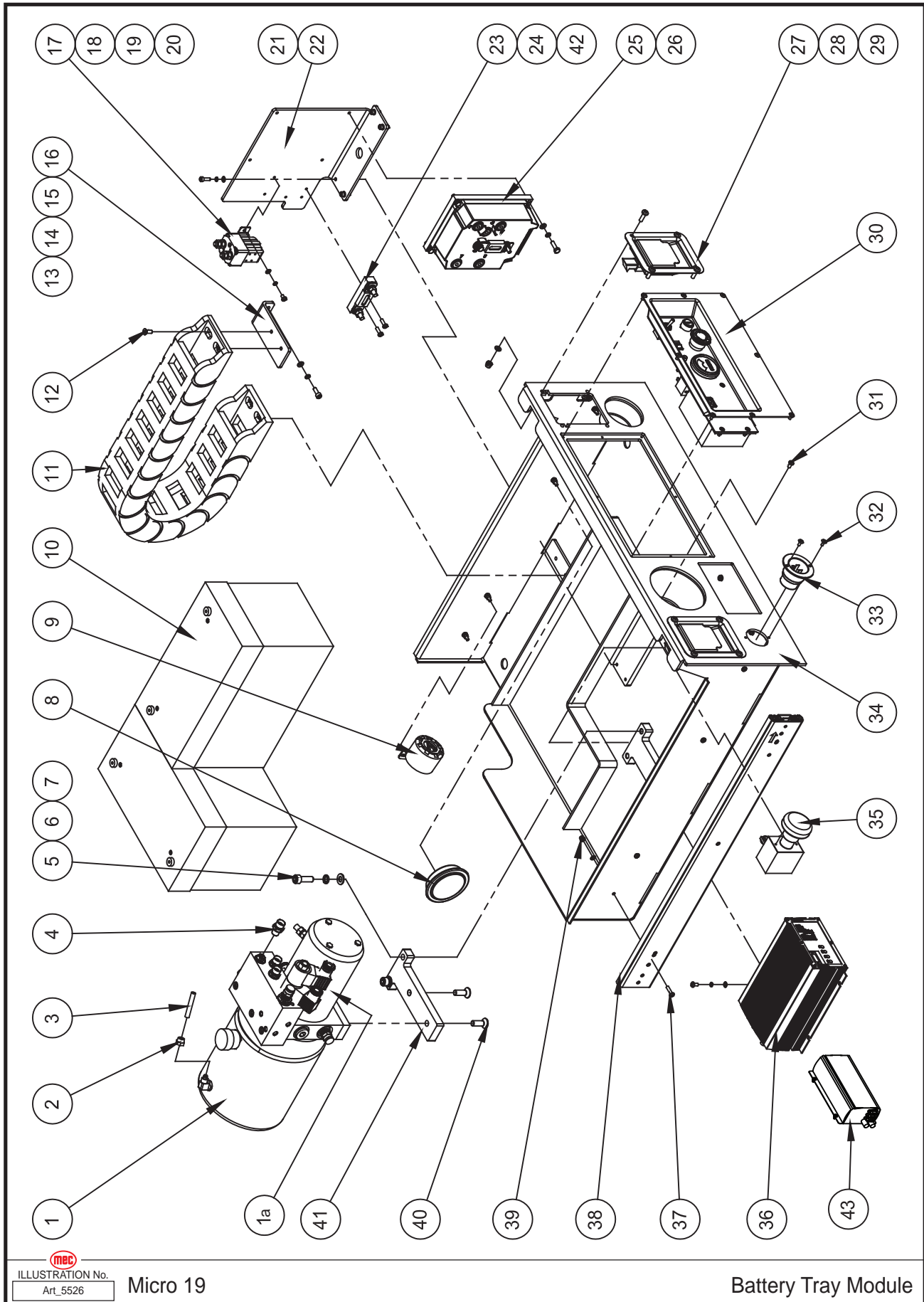


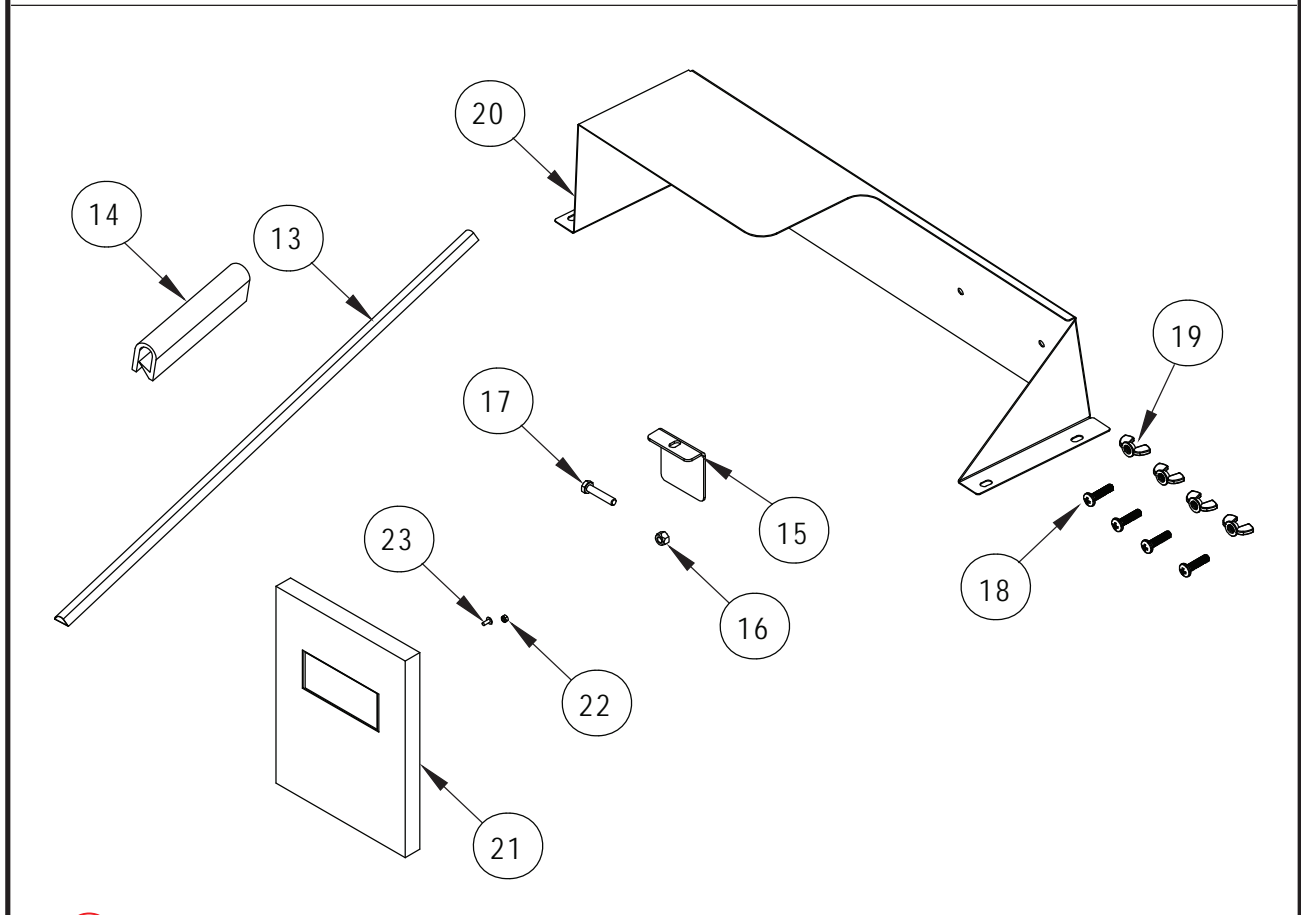
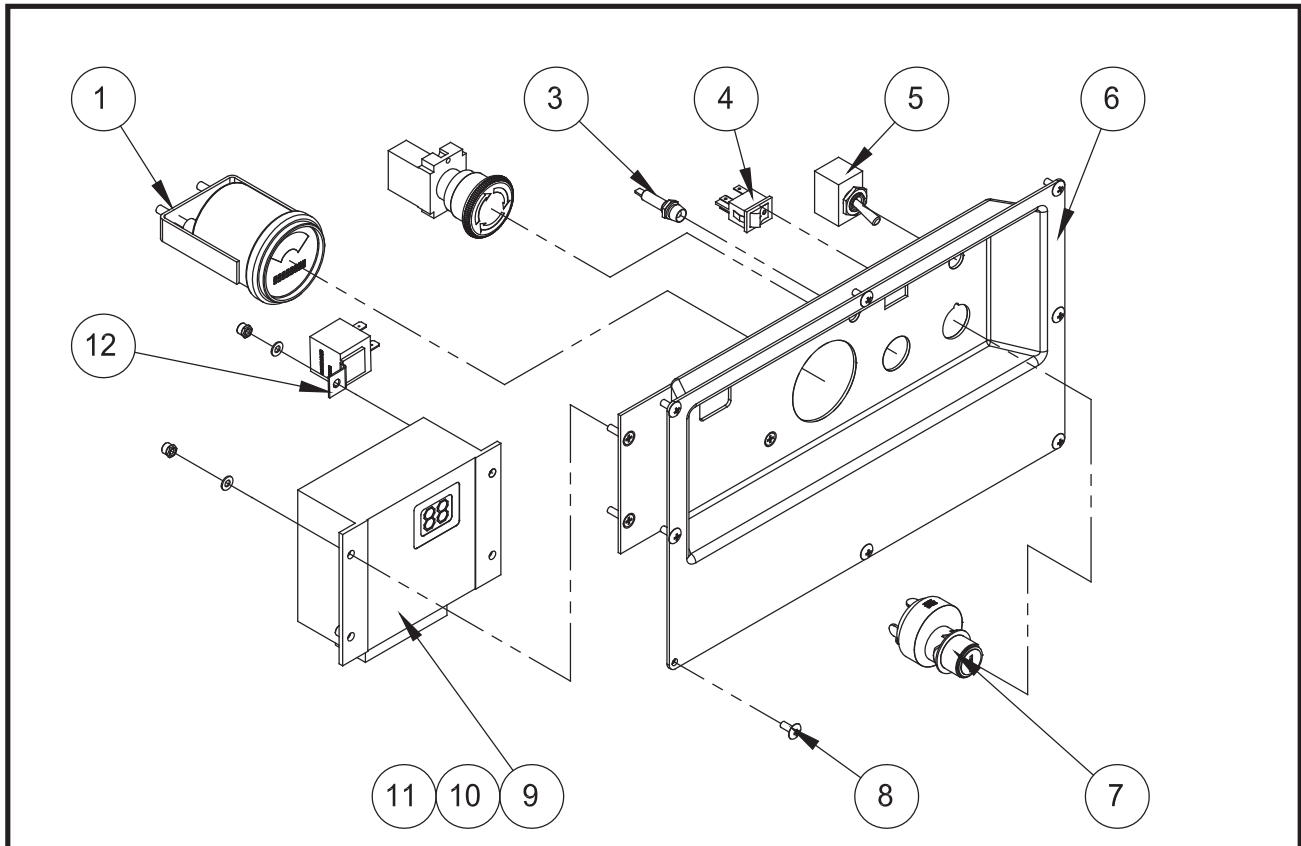
ILLUSTRATION No. **Micro 19**
Art. 5526

Battery Tray Module

Item	Part Number	Description	Qty.
1	42422	Hydraulic Power Unit (Refer to Page 52)	1
-	42423	Valve Body	1
1a	42424	Motor	1
-	42425	Pump	1
-	41245	Lift Valve Solenoid	1
-	41246	Steer Valve Solenoid	1
-	42426	Tank	1
-	42427	Flow Comp Valve	1
2	41413	Joint Nut	1
3	42428	Hose Assembly	1
4	41296	Straight Fitting (Adapter)	3
5	50127	SHCS M10-1.50 x 30 12 ZP F	2
6	53054	WSHR M10 Spring Washer	2
7	50002	WSHR M10 ZP Standard Flat	2
8	41075	Horn	1
9	41074	Alarm	1
10	REF	Battery Group 31 AGM 115AH	2
11	42429	Hose Track	1
12	53138	SHCS M06-1.0 x 16, 10 ZP	4
13	53285	HHCS M6 - 1.0 x 20	2
14	53046	WSHR M6 Spring Washer	6
15	50000	WSHR M06 ZP Standard Flat	14
16	42430	Plate, Hose Track	1
17	41331	DC Contactor	1
18	53097	SDFH M05-0.8 x 12MM Phillips	2
19	53043	WSHR M5 Spring Washer	10
20	53038	WSHR M05 Standard Flat ZP	22
21	53042	HHMS M5 x 16	2
22	42431	Mounting Plate, MC1	1
23	42432	Fuse	1
24	53042	HHMS M5 x 16	2
25	41610	Motor Controller 19	1
26	50028	HHCS M06-1.00 x 20 08 ZP F	4
27	41335	Lock - To Serial #16908455	2
	43977	Lock - From Serial #16908456	2
28	50028	HHCS M06-1.00 x 20 08 ZP F	8
29	50047	NNYL M06X1.00 08 ZP Nylock	8
30	REF	Ground Control Panel Assembly (Refer to Page 50)	1
31	53044	SHMS M5 x 10	6
32	50321	BHCS M04-0.70 x 10 10 BK	2
33	41575	Input Socket	1
34	42433	Battery Box Weldment	1
35	41065	Power Switch	1
36	41254	Charger	1
37	50591	BHCS M05-0.80 x 20 08 ZP F	12
38	41255	Glide Track	2
39	50524	NNYL M05-0.80	12
40	53139	FHSC M10-1.50 x 30 10 F	2
41	41337	Fix Panel	1
42	41092	Fuse Seat	1
43	41672	900W Inverter (Option)	1

REF - Reference

Ground Control Panel Assembly & Standard Pre Kit



Item	Part Number	Description	Qty.
1	41070	Motor Hour Meter	1
2	41422	Emergency Stop	1
3	41421	Indicator	1
4	41614	Brake Reset Switch	1
5	41419	Up-Down Switch	1
6	42434	Panel	1
7	41418	Key Switch	1
-	41668	Key Replacement, Spare	AR
8	50321	BHCS M04-0.70 x 10 10 BK	8
9	41889	ECU Modular - From Serial 16900000 - 16900460	1
	42435	ECU Modular - From Serial 16900461 - 16910999	1
	44580	ECU Modular - From Serial 16911000 - Current	1
10	50284	WSHR M04 ZP Standard Flat	4
11	50285	NNYL M04 x 0.70 08 ZP	4
12	41334	Relay	1
13	94583	Silicone, Smoke Seal (3.5 feet)	1
14	42494	Plastic Edge Trim W/ Metal Core Yellow 22 Inches	1
15	41964	Battery Hold Down Channel	1
16	50047	NNYL M06 x 1.00 08 ZP Nylock	1
17	50214	HHCS M06-1.00 x 30 08 ZP P	1
18	53132	M6 x 25 LG Phillips Round Head	4
19	53133	Nylon 6/6 Plastic (Wing Nut)	4
20	42491	Water Deflector	1
21	8909	Enclosure Service Manual	1
22	50238	NNYL #10-32 05 Z	4
23	50191	THMS #10-32 x 0.50 ZP	4

Hydraulic Power Unit Assembly

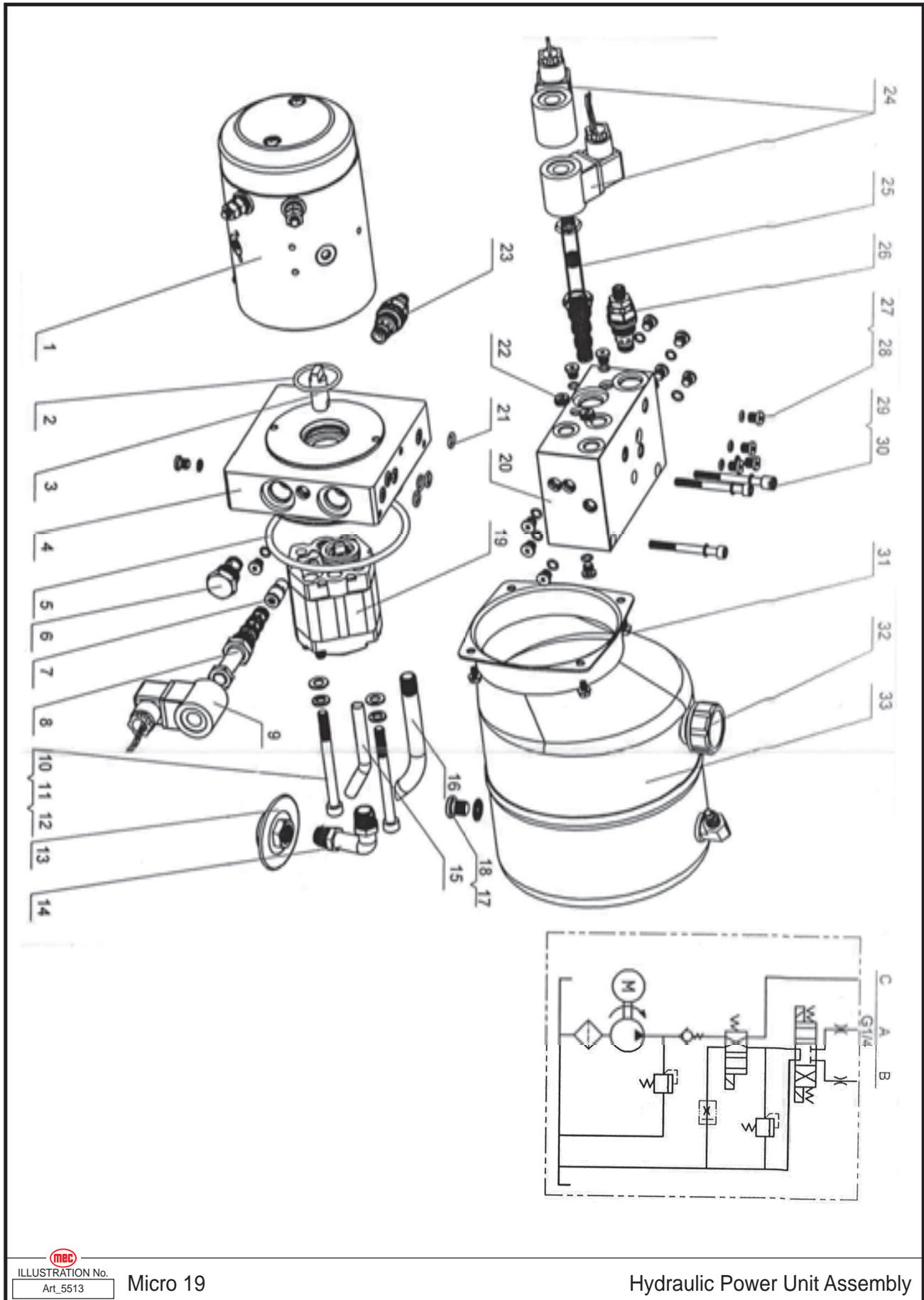


 ILLUSTRATION No. Art_5513 Micro 19

Hydraulic Power Unit Assembly

Item	Part Number	Description	Qty.
1	42424	Motor	1
2	43768	O-Ring	1
3	43769	Tang Drive	1
4	43770	Pump Interface	1
5	43771	O-Ring	1
6	43772	Check Valve	1
7	43773	Orifice	1
8	45305	2 Position Valve	1
9	41895	Solenoid	1
10	50001	WSHR M08 Standard Flat	2
11	53055	WSHR M08 Spring Washer	2
12	53301	SHCS M08-1.25 x 90	2
13	43772	Suction Strainer	1
14	43773	Elbow Fitting	1
15	43774	Tube	1
16	43775	Return Tube	1
17	43776	Drain Plug	1
18	43777	Sealing Washer	1
19	41244	Gear Pump	1
20	43778	Manifold	1
21	43779	O-Ring	4
22	43780	Orifice	2
23	43781	Relief Valve	1
24	41894	Solenoid Steer	2
25	41246	Steer Valve Solenoid	1
26	43781	Relief Valve	1
27	43782	Port Plug	16
28	43783	Sealing Washer	16
29	53046	WSHR M06 Spring Washer	3
30	53302	SHCS M06-1.00 x 55	3
31	53303	HHCS M05-0.8 x 8 Flange	4
32	43784	Filler/Breather	1
33	43785	Reservoir	1

Scissor Assembly

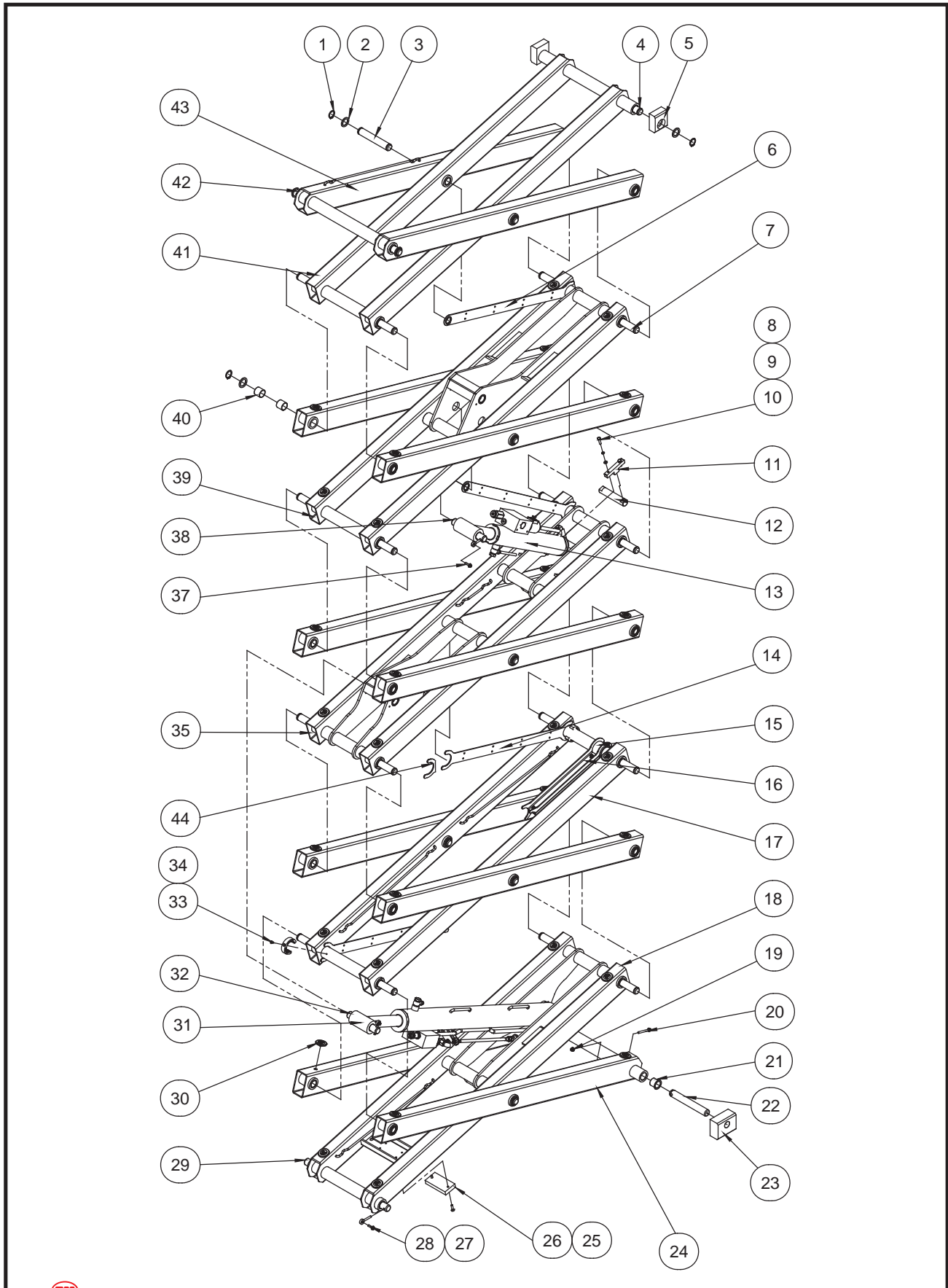



ILLUSTRATION No.
Art_5547

Micro 19

Scissor Assembly

Item	Part Number	Description	Qty.
1	42437	Circlips For Shaft D25	36
2	41354	Circle, Washer	34
3	41349	Axle	6
4	41576	Axle, Scissor Stack, Upper	1
5	41256	Bottom Slider	2
6	42438	Hose Carrier	2
7	41577	Axle, Scissor Stack, Lower	10
8	50386	CSCS M06-1.00 x 25 Phillips	4
9	53046	WSHR M6 Spring Washer	4
10	50000	WSHR M06 ZP	4
11	42439	Cylinder Pin Fixing Board Plate	2
12	42440	Cylinder Axle 3	1
13	REF	Upper Lift Cylinder Assembly (Refer to Page 66)	1
14	42442	Hose Carrier	2
15	41262	Safety Holder	2
16	41263	Safety Arm	2
17	42443	Inner Arm 2	1
18	42444	Inner Arm 1	1
19	50047	NNYL M06 x 1.00 08 ZP Nylock	4
20	42445	Bolt M6 x 55	2
21	42446	Bearing	28
22	41338	Top Slider Axle	2
23	42447	Bottom Slider	2
24	42448	Outer Arm 1	1
25	50386	CSCS M06-1.00 x 25 Phillips	2
26	41350	Pot Hole Pressboard	1
27	50028	HHCS M06-1.00 x 20 08 ZP F	3
28	42449	Pin	4
29	42450	Retainer Base Axle	1
30	41114	Block	32
31	REF	Lift Cylinder Assembly (Refer to Page 64)	1
32	41345	Cylinder Axle	2
33	50591	BHCS M05 x 12mm	2
34	41582	Collar	2
35	42452	Inner Arm 3	1
36	42453	Outer Arm 2	6
37	50028	HHCS M06-1.00 x 20 08 ZP F	3
38	42454	Cylinder Axle 2	1
39	42455	Inner Arm 4	1
40	41287	Bearing, Lift Cylinder	64
41	42456	Inner Arm 5	1
42	42457	Axle	1
43	42458	Outer Arm 5	1
44	44533	Bushing Insert	4

REF - Reference

Main Platform Assembly

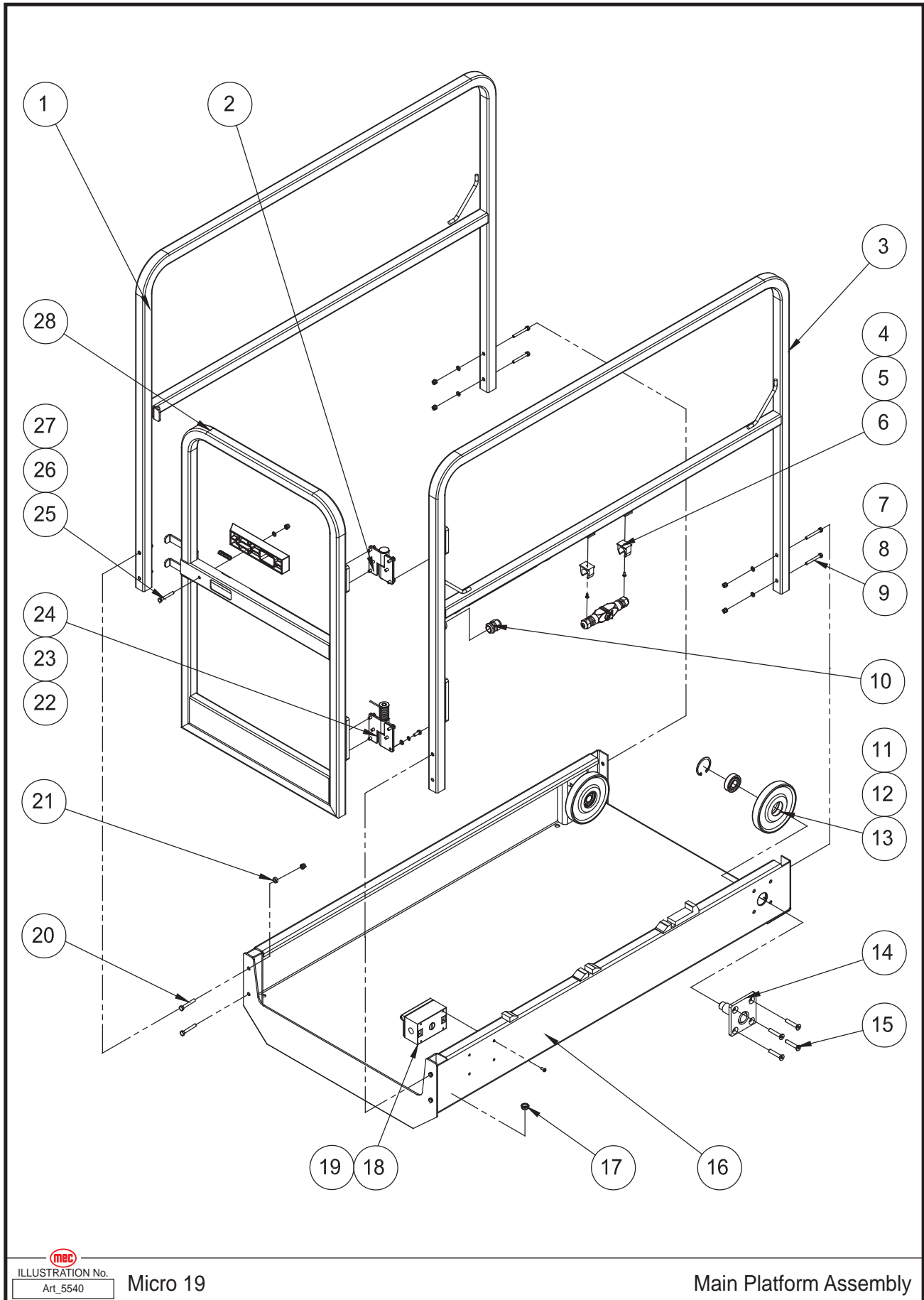


 ILLUSTRATION No. **Micro 19**
Art_5540

Main Platform Assembly

Item	Part Number	Description	Qty.
1	42459	Platform Guardrail	1
2	41127	Hinge A	1
3	42460	Platform Guardrail	1
4	41271	Connector	1
5	50321	BHCS M04-0.70 x 10 10 BK	2
6	41134	Clip 24	2
7	53014	NHEX M08-1.25, ZP	10
8	50001	WSHR M08 ZP Standard Flat	22
9	50015	HHCS M08-1.25 x 50 08 ZP P	4
10	41273	Waterproof Joint	1
11	41267	Circlip	2
12	41131	Bearing	2
13	41269	Roller	2
14	41270	Roller Installation	2
15	53080	FHSC M08-1.25 x 045	8
16	42461	Platform Deck Weldment	1
17	41275	Shield Sleeve	2
18	91597	Box	1
	91598	Cover	1
	92007	Outlet	1
19	53044	SHMS M5 x 10	4
20	50016	HHCS M08-1.25 x 55 08 ZP P	4
21	42462	Washer	1
22	41128	Hinge B	1
23	50445	HHCS M06-1.00 x 16 08 ZP	12
24	50000	WSHR M06 ZP Standard Flat	12
25	50294	HHCS M06-1.00 x 45 08 ZP P	1
26	41277	Spring	1
27	41278	Door Knob (Latch)	1
28	41574	Door, Entry Gate	1

Platform Extension Assembly

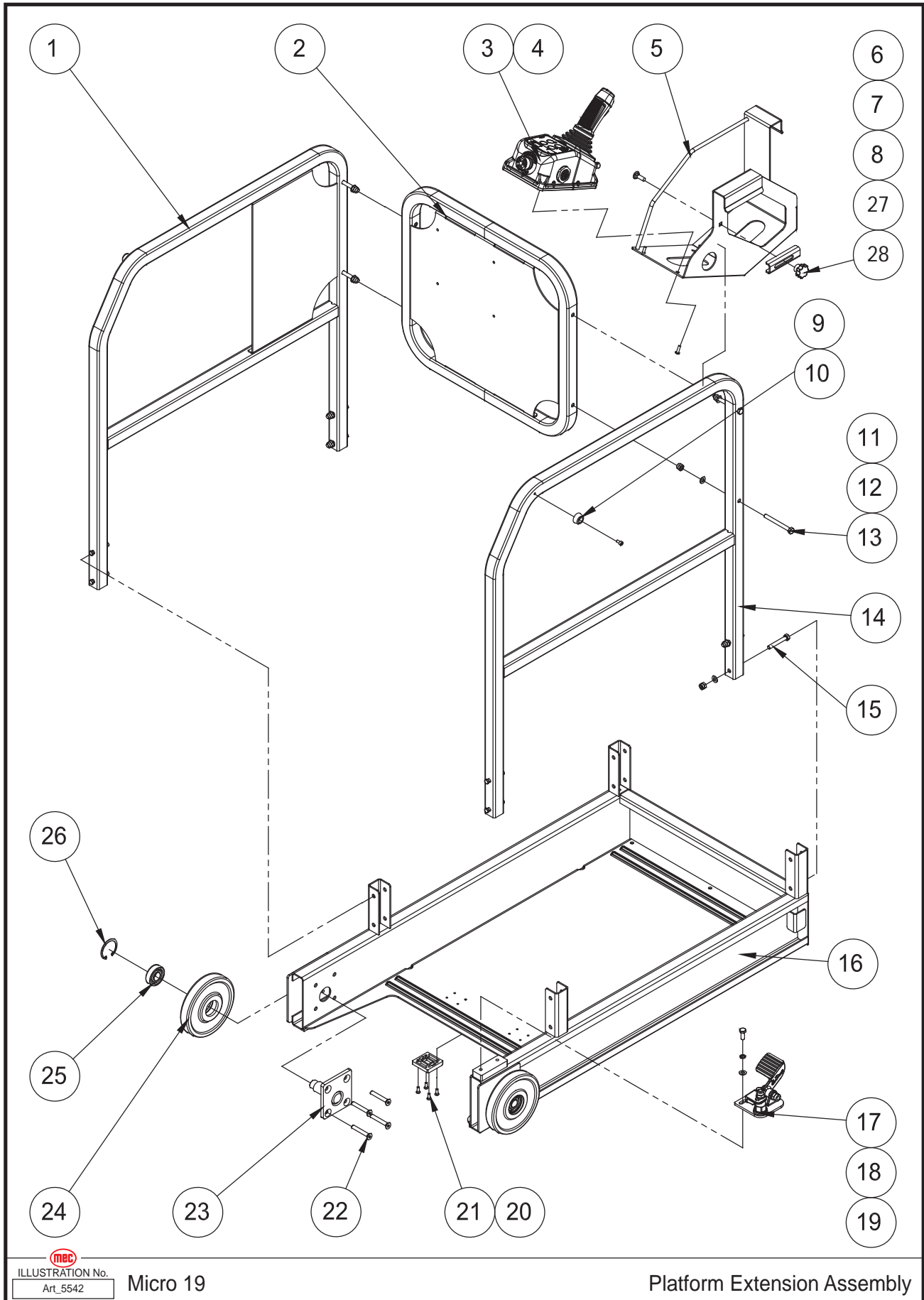


 ILLUSTRATION No. **Micro 19**
Art. 5542

Platform Extension Assembly

Item	Part Number	Description	Qty.
1	41279	Platform Guardrail	1
2	41283	Platform Guardrail	1
3	REF	Platform Controls (Refer to Page 62)	1
4	53042	PHMS M6 x 16	4
5	41282	Control Box Mount Bracket	1
6	53248	CARB M08-1.25 x 25 08 ZP Carriage	1
7	42500	Fixed Plate	1
8	42501	Star Handle	1
9	53035	BHCS M05-0.80 x 16, G08, ZP	2
10	41120	Rubber Gasket	2
11	53014	NHEX M08-1.25, ZP	12
12	50001	WSHR M08 ZP	12
13	50018	HHCS M08-1.25 x 80 08 ZP P	4
14	41280	Platform Guardrail	1
15	50016	HHCS M08-1.25 x 55 08 ZP P	8
16	41361	Platform Extension	1
17	50001	WSHR M08 ZP Standard Flat	2
18	50030	HHCS M08-1.25 x 20 08 ZP F	2
19	41140	Platform Extension Lock Assembly	1
20	41284	Slide Pad	2
21	53045	HHMS M5 x 14	8
22	53069	CSCS M06 x 20	8
23	41360	Roller Mount	2
24	41141	Roller	2
25	41131	Bearing	2
26	41358	Circlip	2
27	50048	NNYL M08X1.25 08 ZP Nylon Inse	1
28	43897	Kit, Upper Control Box Lock	1

REF - Reference

Platform Extension Lock

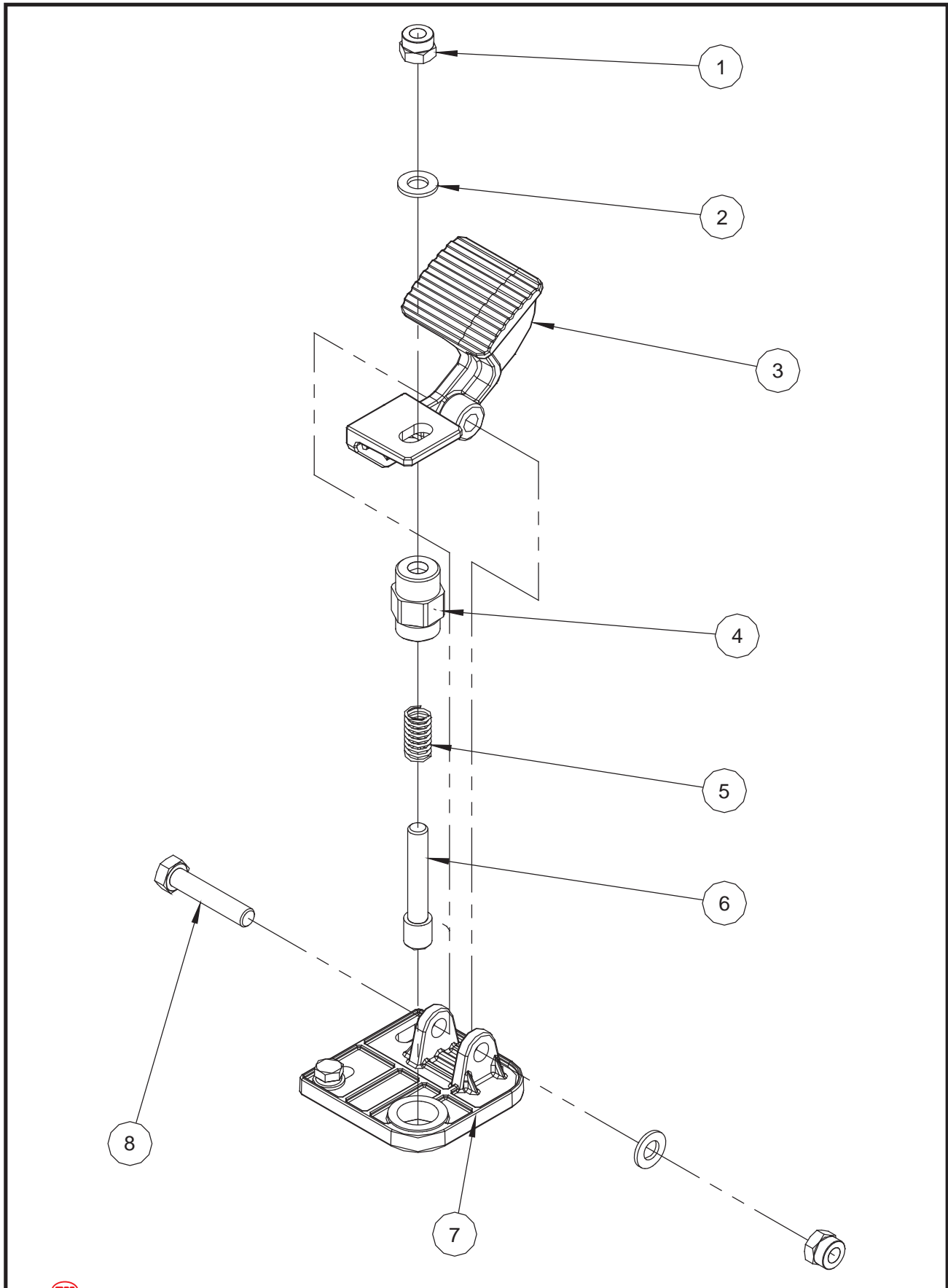


 ILLUSTRATION No. **Micro 19**
Art_5543

Platform Extension Lock

Item	Part Number	Description	Qty.
1	50049	NNYL M10X1.50 08 ZP Nylon Inse	2
2	50002	WSHR M10 ZP Standard Flat	2
3	41143	Footpedal	1
4	41144	Lock Pin Housing	1
5	41145	Spring	1
6	41146	Lock Pin	1
7	41147	Bracket	1
8	50020	HHCS M10-1.50 x 50 08 ZP P	1

Platform Controls

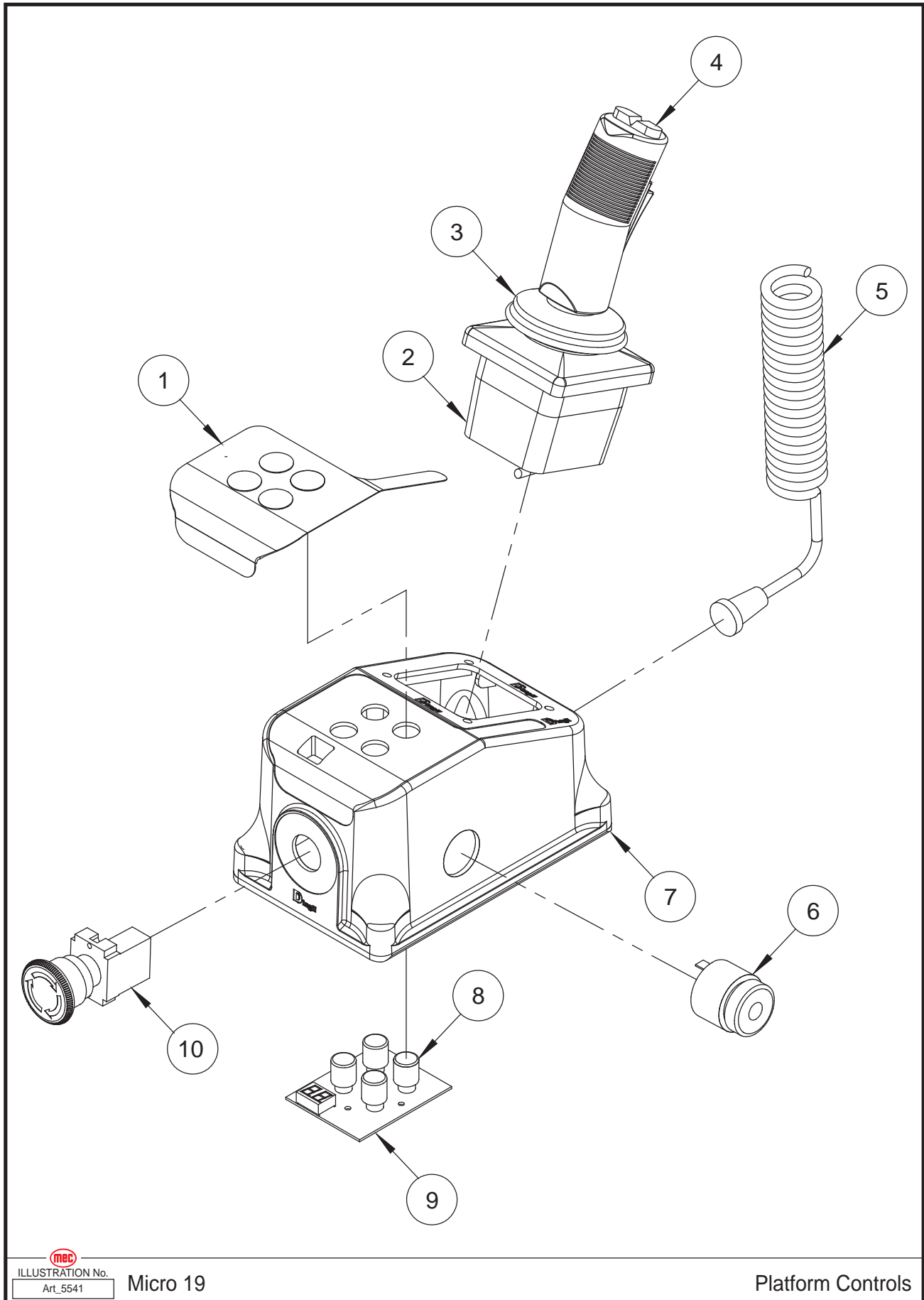


 ILLUSTRATION No. **Micro 19**
Art_5541

Platform Controls

Item	Part Number	Description	Qty.
--	41137	Platform Control Box Assembly	1
1	41632	Decal, Platform Controls	1
2	41149	Joystick	1
3	41150	Dustproof Cover	1
4	41151	Switch Boot	1
5	41152	Coil Cord	1
6	41153	Alarm	1
7	41154	Enclosure	1
8	41155	Button	4
9	41156	PC Board	1
10	41157	Emergency Stop Switch	1
11	41137	Platform Control Box	1

Lift Cylinder Assembly

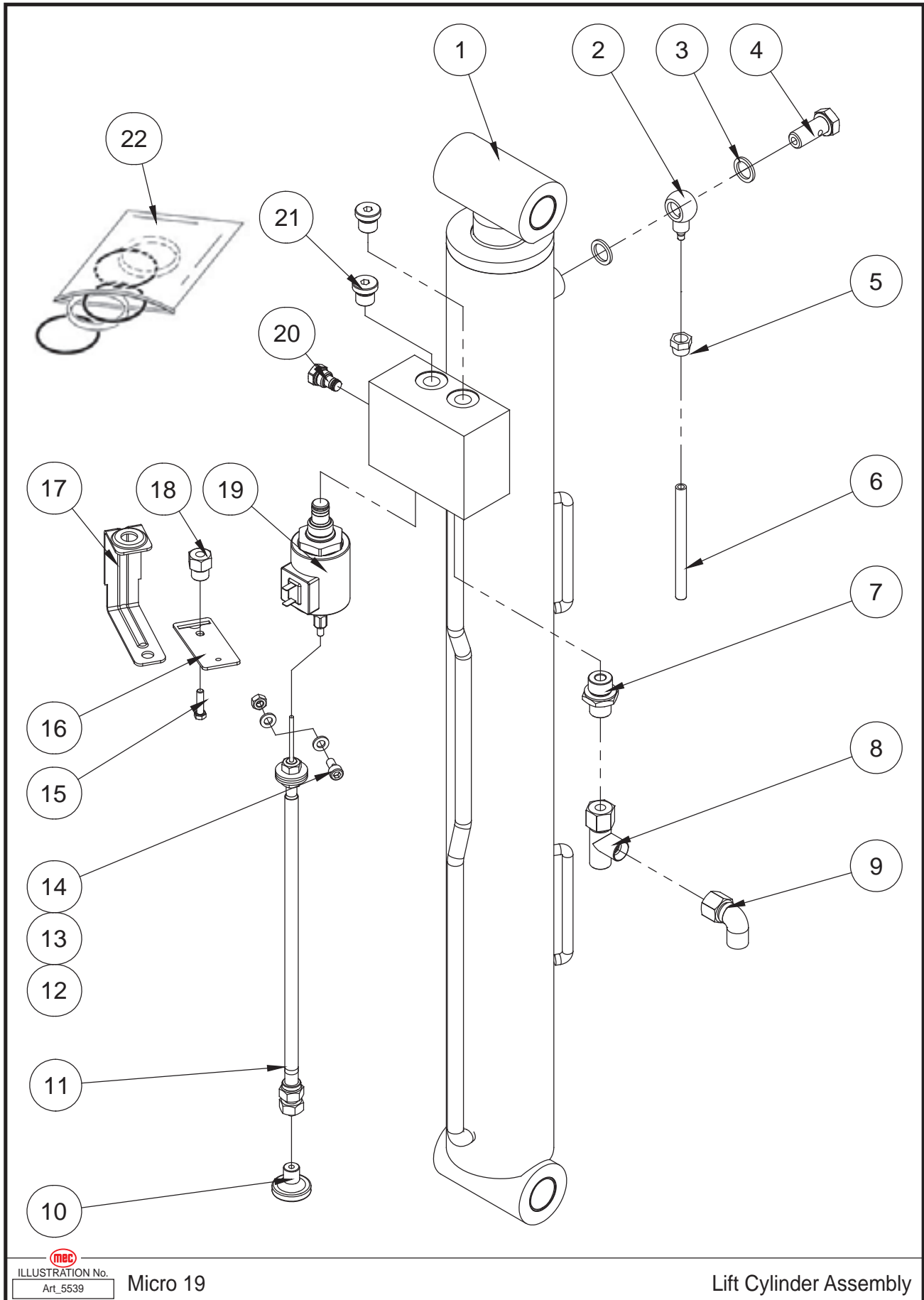


 ILLUSTRATION No. **Micro 19**
Art_5539

Lift Cylinder Assembly

Item	Part Number	Description	Qty.
1	42463	Lift Cylinder	1
2	41167	Piecing Devices	1
3	41830	Washer, M14 Sealing	2
4	41166	Pipeline Bolt	1
5	41413	Joint Nut	1
6	42464	Hose Assembly	1
7	41299	Straight Fitting (Adapter)	1
8	42502	Tee Fitting	1
9	41300	Elbow	1
10	41162	Lowering Knob	1
11	42465	Lowering Anchor Line	1
12	42466	Set Screw	1
13	50000	WSHR M06 ZP Standard Flat	2
14	50047	NNYL M06 × 1.00 08 ZP Nylock	1
15	53044	SHMS M5 × 20	1
16	42467	Bracket, EMR Lowering	1
17	42468	Lever, EMR Down	1
18	42469	Guide Sleeve	1
19	41746	Lowering Valve	1
--	41747	Down Valve Coil	1
20	41165	Throttle Valve	1
21	42480	Plug	2
22	42470	Seal Kit	1

Upper Lift Cylinder Assembly

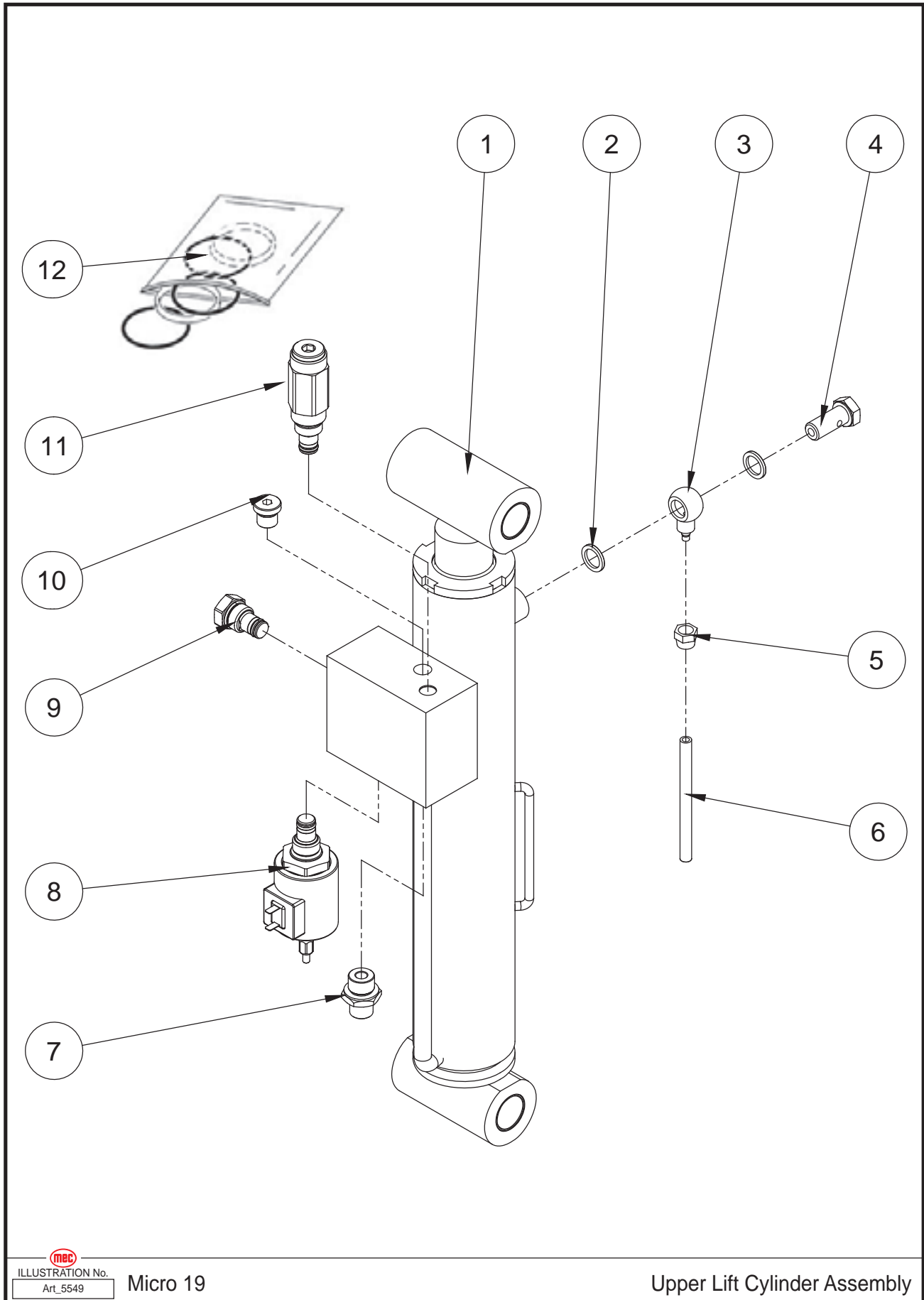
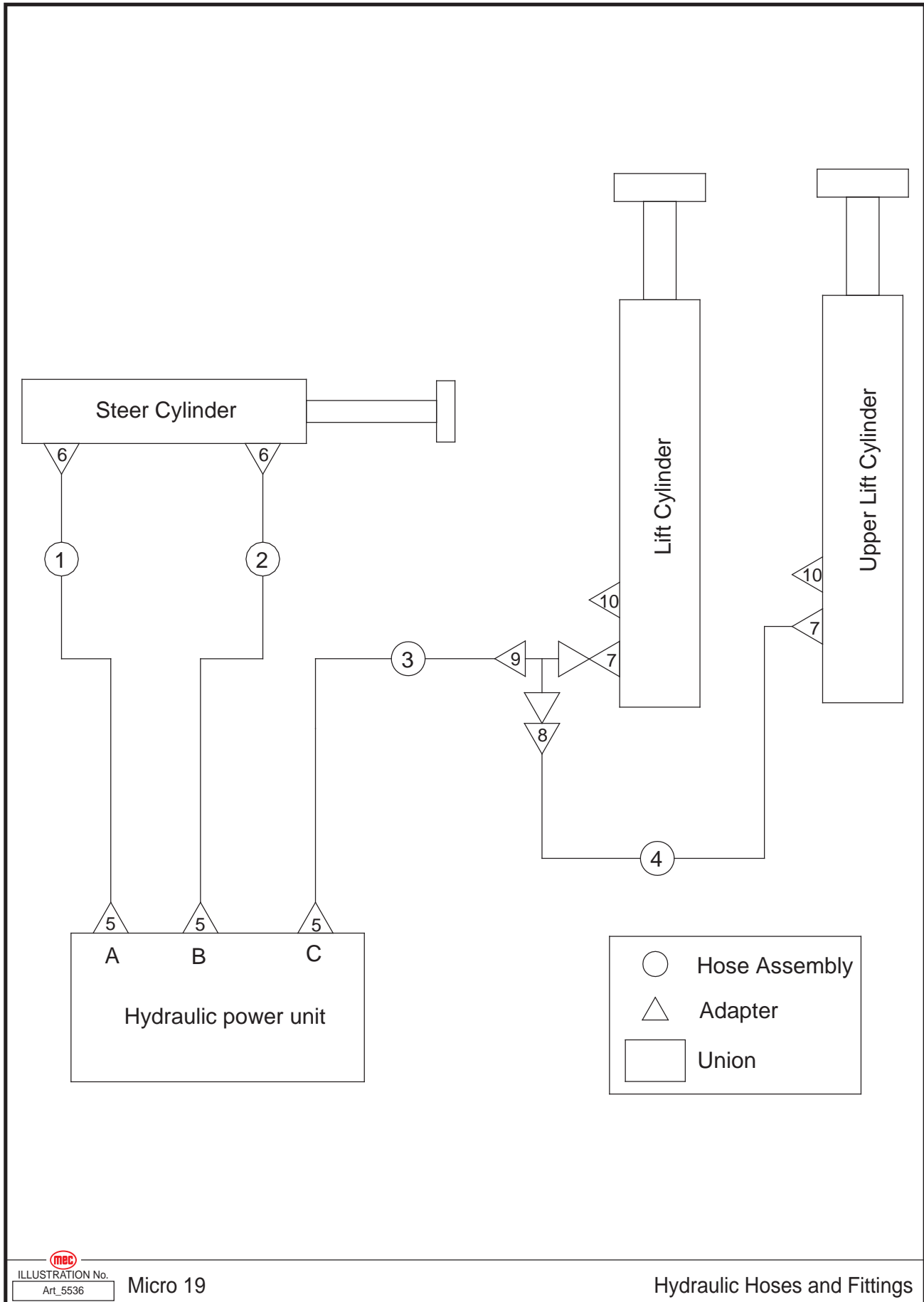


 ILLUSTRATION No. **Micro 19**
Art_5549

Upper Lift Cylinder Assembly

Item	Part Number	Description	Qty.
1	42471	Upper Lift Cylinder	1
2	41830	Washer, M14 Sealing	2
3	41167	Piecing Devices	1
4	41166	Pipeline Bolt	1
5	41413	Nut	1
6	42472	Hose Assembly	1
7	41299	Straight Fitting (Adapter)	1
8	42473	Lowering Valve	1
9	41165	Throttle Valve	1
10	42480	Plug	1
11	41169	Relief Valve	1
12	42475	Seal Kit	1
13	41747	Coil	1

Hydraulic Hoses and Fittings



Item	Part Number	Description	Qty.
1	42476	Hose Assembly	1
2	42477	Hose Assembly	1
3	42478	Hose Assembly	1
4	42479	Hose Assembly	1
5	41296	Straight Fitting (Adapter)	3
6	41298	Straight Fitting (Adapter)	2
7	41299	Straight Fitting (Adapter)	2
8	41300	Elbow	1
9	42502	Tee Fitting	1
10	42480	Plug	2

Electrical Harness

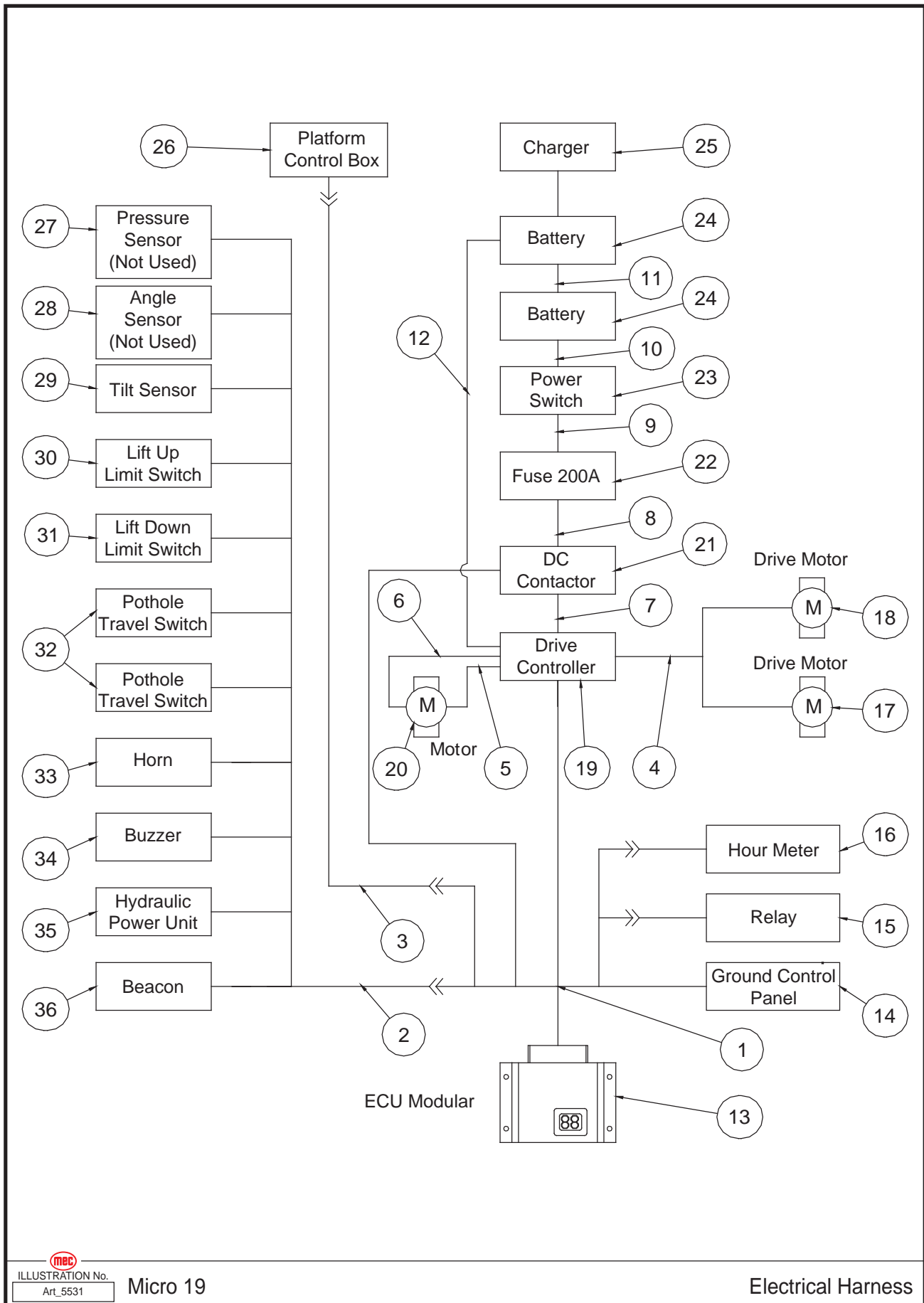


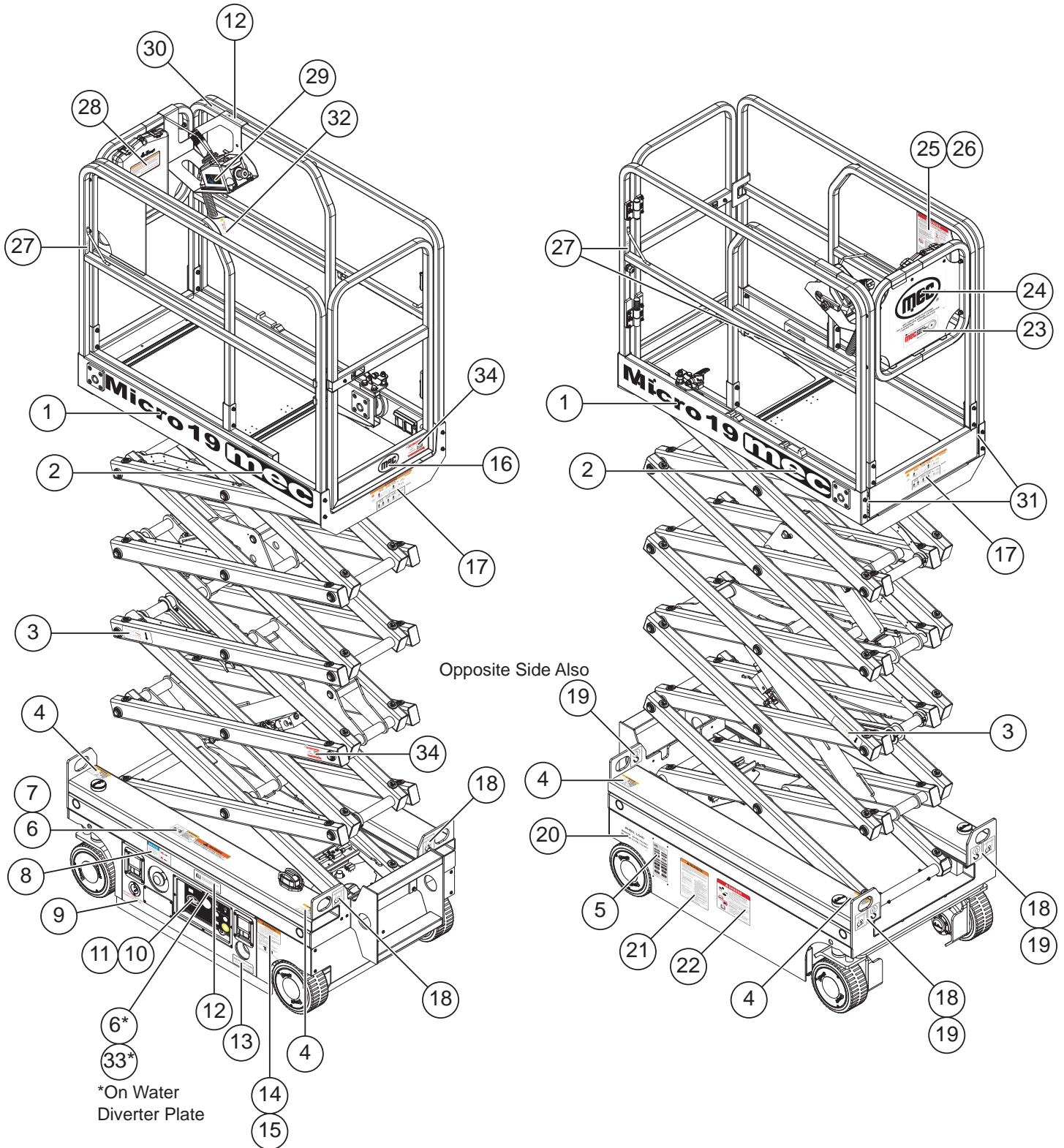
ILLUSTRATION No. **Micro 19**
Art_5531

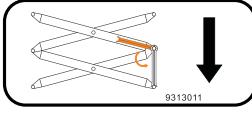

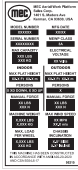
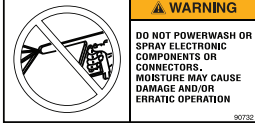

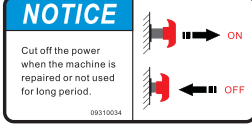
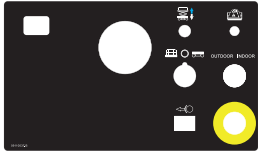

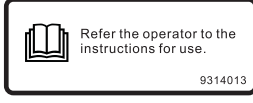

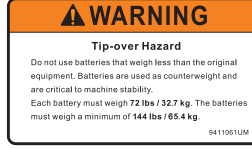

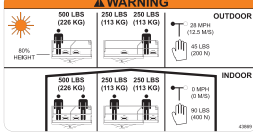

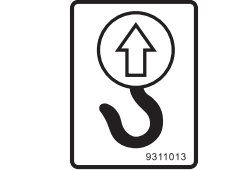







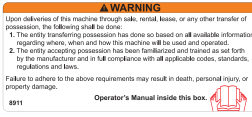
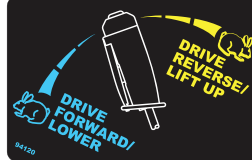




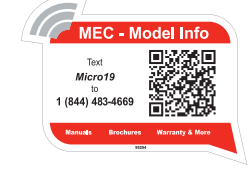
Electrical Harness

Item	Part Number	Description	Qty.
1	42481	Harness, ECU Modular	1
2	42482	Harness, Electrical Component	1
3	42483	Harness, Platform Control Box	1
4	42484	Harness, Drive Motor	1
5	41919	Battery Harness 1 1330 Pump Motor Negative	1
6	41921	Battery Negative Harness 1330 Pump Motor Positive	1
7	41917	Harness, DC Contactor 1330 Drive Controller	1
8	42485	Harness, DC Contactor	1
9	42486	Harness, Fuse	1
10	42487	Harness, Battery Positive	1
11	42488	Harness, Battery	1
12	42489	Battery Negative Harness	1
13	41889	ECU Modular - From Serial 16900000 - 16900460 (Refer to Page 50)	1
	42435	ECU Modular - From Serial 16900461 - Current (Refer to Page 50)	1
14	42434	Ground Control Panel (Refer to Page 50)	1
15	41334	Relay (Refer to Page 50)	1
16	41070	Hour Meter (Refer to Page 50)	1
17	42419	Drive Motor (Refer to Page 42)	1
18	42421	Drive Motor (Refer to Page 44)	1
19	41610	Motor Controller 19 (Refer to Page 48)	1
20	42424	Motor (Refer to Page 48)	2
21	41331	DC Contactor (Refer to Page 48)	1
22	42432	Fuse (Refer to Page 48)	1
23	41065	Power Switch (Refer to Page 48)	1
24	REF	Battery Group 31 AGM 115 AH (Refer to Page 48)	2
25	41254	Charger (Refer to Page 48)	1
26	REF	Platform Controls (Refer to Page 62)	1
27	--	Not used	--
28	--	Not Used	--
29	41098	Level Sensor (Refer to Page 34 or 36)	1
30	42400	Lift Up Limit Switch (Refer to Page 34)	1
31		Lift Down limit Switch (Refer to Page 34)	1
32	41197	Limit Switch, Pothole (Refer to Page 34 or 36)	2
33	41075	Horn (Refer to Page 48)	1
34	41074	Buzzer, Alarm (Refer to Page 48)	1
35	42422	Hydraulic Power Unit (Refer to Page 48)	1
36	41310	Beacon (Refer to Page 34 or 36)	1

REF - Reference

Decal Locations



<p>1</p> <p>Micro19</p> <p>94559 Qty. - 2</p>	<p>2</p> <p>mec</p> <p>94114 Qty. - 2</p>	<p>3</p>  <p>9313011</p> <p>41638 Qty. - 2</p>	<p>4</p>  <p>94362 Qty. - 4</p>	<p>5</p>  <p>95215 Qty. - 1</p>
<p>6</p>  <p>90732 Qty. - 2</p>	<p>7</p>  <p>42534 Qty. - 1</p>	<p>8</p>  <p>43910 Qty. - 1</p>	<p>9</p> <p>BATTERY CHARGER AND POWER TO PLATFORM</p> <p>94659 Qty. - 1</p>	<p>10</p>  <p>44536 Qty. - 1</p>
<p>11</p>  <p>94122 Qty. - 1</p>	<p>12</p>  <p>9314013</p> <p>41639 Qty. - 2</p>	<p>13</p>  <p>9311017</p> <p>41636 Qty. - 1</p>	<p>14</p>  <p>9411061 (UM)</p> <p>42493 Qty. - 1</p>	<p>15</p> <p>MICRO 19 BRAKE RELEASE INSTRUCTIONS</p> <ol style="list-style-type: none"> 1- Chock the wheels. 2- Turn Key Switch to OFF position. 3- Ensure both upper and lower E-Stop are on. 4- Press and hold Brake Rocker Switch (A) and Lift/Lower Switch (B) down, turn the Key Switch to the Ground position. 5- Hold Brake Rocker Switch (A) and Lift/Lower Switch (B) until a continuous alarm sounds, confirming brakes are released. 6- Press an E-Stop or return the Key Switch to the OFF position to re-set the brakes. <p>94846</p> <p>94846 Qty. - 1</p>
<p>16</p>  <p>94115 Qty. - 1</p>	<p>17</p>  <p>43869 Qty. - 2</p>	<p>18</p>  <p>9311015</p> <p>41635 Qty. - 4</p>	<p>19</p>  <p>9311013</p> <p>41634 Qty. - 4</p>	<p>20</p> <p>WHEEL LOAD</p> <p>MINIMUM 83 PSI / 572 KPa</p> <p>MAXIMUM 112 PSI / 772 KPa</p> <p>94571</p> <p>94571 Qty. - 1</p>
<p>21</p>  <p>41649 Qty. - 1</p>	<p>22</p>  <p>41641 Qty. - 1</p>	<p>23</p>  <p>94423 Qty. - 1</p>	<p>24</p>  <p>90719 Qty. - 1</p>	<p>25</p>  <p>43885 Qty. - 1</p>
<p>26</p>  <p>41647 Qty. - 1</p>	<p>27</p>  <p>941423 (UM)</p> <p>41648 Qty. - 3</p>	<p>28</p>  <p>8911 Qty. - 1</p>	<p>29</p>  <p>94120 Qty. - 1</p>	<p>30</p>  <p>9314015</p> <p>41640 Qty. - 1</p>
<p>31</p>  <p>91850 Qty. - 2</p>	<p>32</p>  <p>94778 Qty. - 1</p>	<p>33</p>  <p>43879 Qty. - 1</p>	<p>34</p>  <p>95254 Qty. - 2</p>	



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MEC Aerial Platform Sales Corp. warrants its equipment to the original purchaser against defects in material and/or workmanship under normal use and service for one (1) year from date of registered sale or date the unit left the factory if not registered. MEC Aerial Platform Sales Corp. further warrants the structural weldments of the main frame and scissor arms to be free from defects in material or workmanship for five (5) years from date of registered sale or date unit left the factory if not registered. Excluded from such warranty is the battery(s) which carries a ninety (90) day warranty from described purchase date. Warranty claims within such warranty period shall be limited to repair or replacement, MEC Aerial Platform Sales Corp's option, of the defective part in question and labor to perform the necessary repair or replacement based on MEC Aerial Platform Sales Corp's then current flat rate, provided the defective part in question is shipped prepaid to MEC Aerial Platform Sales Corp. and is found upon inspection by MEC Aerial Platform Sales Corp. to be defective in material and/or workmanship. MEC Aerial Platform Sales Corp. shall not be liable for any consequential, incidental or contingent damages whatsoever. Use of other than factory authorized parts; misuse, improper maintenance, or modification of the equipment voids this warranty. The foregoing warranty is exclusive and in lieu of all other warranties, express or implied. All such other warranties, including implied warranties of merchantability and of fitness for a particular purpose, are hereby excluded. No Dealer, Sales Representative, or other person purporting to act on behalf of MEC Aerial Platform Sales Corp. is authorized to alter the terms of this warranty, or in any manner assume on behalf of MEC Aerial Platform Sales Corp. any liability or obligation which exceeds MEC Aerial Platform Sales Corp's obligations under this warranty.



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