**BID SPECIFICATIONS -**
**OMER MCO 19B-4-76-BW 19,000 lbs. Ea.**
**76,000 LB. CAPACITY (4) COLUMNS**
**24V DC POWERED MOBILE COLUMNS WIRELESS**

1. SUBMITTALS.

   A. Product Data: Manufacturer's data sheets on each product to be used, including:
      1. Preparation instructions and recommendations.
      2. Storage and handling requirements and recommendations.
      3. Installation methods.

   B. Shop Drawings: Submit drawings showing full layout of all lifts with dimensions and details shown for services and conduits between lifts and the control consoles.

   C. Operation and Maintenance Manual: Submit Owner's manual to include system operation, maintenance and troubleshooting, spare part number, drawings and schematics.

2. DELIVERY, STORAGE, AND HANDLING

   A. Store products in manufacturer's unopened packaging until ready for installation.

   B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

3. PROJECT CONDITIONS

   A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

   B. Provide floor conditions that meet the 4 1/2” thickness, 4000 psi strength and 2-degree level specified. Ensure that there is adequate drainage to continuously remove water away for the lift.

4. **WARRANTY** – **MCO PLUS Hydraulic Protection**

A. Manufacturer's Warranty: Lift system shall be warranted against defects in workmanship and material for a minimum period of two (2) years for ALL parts and 1-year labor. The batteries shall be warrantied for a period of two (2) years with the second year "pro-rated". The PET guide bearing shall have a lifetime parts warranty. The Hydraulic Cylinder seals shall be warranted for
a minimum of ten (10) years covering replacement parts only. **This warranty is limited will exclude misuse, abuse or lack of maintenance.**

5. MANUFACTURERS

A. Acceptable Manufacturer: OMER USA, Inc., which is located at: 3402 Oakcliff Rd Ste #B6 30340 Atlanta ; Tel: 470-275-5919; Email: office@omerlift.com or web site > http://www.omerinc.com <

B. Substitutions: Not permitted.

1. Requests for substitutions will be considered in accordance with provisions the specific tender.

2. Requests for changes on products, materials, equipment and methods of construction required by the contract documents by the Contractor after the award shall be considered requests for "substitutions", and shall follow the procedures outlined within the bid documents for Substitutions.

3. Any substitution of specified lift requiring modifications of foundation system detailed will be the responsibility of the Contractor.

4. The Contractor shall provide for any and all engineering and redesign of foundation system as a result of substitution.

5. Under no circumstances will extra payment be permitted as a result of additional work to accommodate any equipment substitution

6. The lift manufacturer must be a member in good standing with the ALI (Automotive Lift Institute) and have been supplying and servicing heavy duty lift equipment in North America for a period of not less than ten (10) years.

7. The manufacturer of the lifting systems shall have been ISO9001 certified.

C. Design Parameters:

1. Certification - The mobile columns lifts must be delivered with the ALI (Automotive Lift Institute) Gold label certifying that they have been independently third parted tested to meet or exceed the ANSI/ALI AL CTV standard. They must also meet or exceed the UL 201 3rd edition standard for garage equipment.

2. The mobile column structures must be coated with a double bake powder coat finish. Prior to the finishing process, all steel structural components must go through a steel pellet blast (wheel-a-brator) pre-finish to remove oils and mill slag from the surface. (This also hardens the surface of the steel and allows for better penetration of the finish material.)

3. The lifts must be designed for rough service commercial activity and use plated or chromed materials and hardware where exposed. The primary electrical components must be a minimum of NEMA 4 IP 65 water splash resistant.

4. The lifts will have a minimum anticipated "Cycle life" under normal use applications of **not less than fifteen (15) years.**

**OMER MCO 86- SPECIFICATIONS**

5. Scope:

a. Each column within a set will be interchangeable and a set shall be designed for use with a minimum of ten (10) columns

b. The columns will be equipped with rugged 10 mm communication cables that have recoil reels for quick retraction of the cables. The cables will interface with the control using horizontal push style quick connectors.

c. All columns shall be able to be operated synchronously (as a set) from the control panel on any of the columns in the set. Individual or paired operation shall be obtained by activating a selection button on that column or within a designated pair of columns.

d. Each column shall contain its own power supply which consists to two deep cycle 12 VDC batteries combined to provide stable 24 VDC and include a built-in charging system.

e. Each column shall be structurally designed as to have the motor and hydraulic pump positioned in the center of the column to promote greater stability during column relocation.

6. Equipment Operating Parameters:

a. Each lifting column shall have a capacity of 19,000 lb. per column.

b. The achieved lifting height of the tire foot print at each lifting fork shall be no less than 70" as measured from the ground to the bottom of the tire.

c. The column height shall be no greater than 89.4".

d. The columns will operate with a noise level of 75 decibels or less.

e. The total lifting time shall not be greater than 80 seconds when loaded to 85% of the rated load.

f. The lowering speed shall not be greater than 68 seconds.

g. The columns will have an overall depth of 34.8" to the back of the column and 53.6" when the rear steering handle is included.

h. The overall maximum width of the columns will be no more than 45.3".

i. The maximum height of the column when the carriage is fully raised to full operating height will be 155.8".

j. The shipping weight of the columns with the batteries installed shall not exceed 1586 lb.

k. The lift will come equipped with "adjustable style" lifting forks that are no less than 15.3" long. The forks will be a "lift and lock" design and use minimum 36,000 ski (S275JR) strength steel tube.

l. The separation between the forks shall be 24.6" when fully extended apart and 10.4" when moved as close to together as possible.

m. The distance between the column tower and the inside edge of the lifting fork will be no less than 10".

n. The columns will be compact in design and have a turning radius of not more than 45 degrees.

o. The angle of the lifting fork will not exceed 35 degrees to provide a low profile for larger/wider tires.

p. There will be front synthetic rollers on the front forward end of the front frames that are 4" wide by 2.4" in diameter. The rollers will operate with an estimated load force of no more than 1545 psi on the floor when fully loaded. **Front retractable wheels will not be necessary to reduce load forces on the floor.**

7. Drive Mechanism:

a. The drive system shall be hydraulic and shall permit lifting without pulsation or jerking. Lifting shall be smooth and consistent with a minimum of column height adjustments occurring during operation.

b. The hydraulic lifting system shall be comprised of a 24VDC electrically powered pump, flow control valves and a fluid reservoir.

c. The lift will use **premium "Bosch" (Letrika)** 4HP 3KW high torque energy efficient power units.

d. The lift will be capable of operating with biodegradable synthetic hydraulic fluid that poses not three to the environment.

e. The column carriage shall run on premium **PET** (Polyethylene terephtalate) partially crystalline thermoplastic industrial glide bearings that have high sliding properties and dimensional stability. The glide bearings will have undergone cycle testing to not less than 20,000 cycles at full load to insure their long cycle life.

f. In order to promote optimal distribution of stresses from the carriage to the column, the vertical distance between the glide bearings will be no less than 60".

g. The carriage shall have no less than a 1/2" clearance from the floor, in the retracted position, to enhance mobility when the power is off.

h. The columns shall be equipped with an electronic and redundant electronic and mechanical end stop to limit the lifting height.

i. The push style hydraulic lifting cylinder in each column will be 3.85" OD in diameter and be mounted inside the carriage. At all times, the chrome plated plunger rod of the hydraulic cylinder will remain protected from dirt and damage. The cylinder rod will not require periodic lubrication.

j. The plunger will use premium "gland style" seals with wear rings to prevent damage to the inside of the tube. The cylinders and hydraulic components must be tested to withstand 4 x operating pressure.

k. Each cylinder must be equipped with an automatic burst (velocity) fuse check valve that automatically locks in the event of a catastrophic hydraulic hose or seal burst.

l. **Batteries** - two (2) **"Fiamm"** brand 12 volt Industrial batteries **model 12GL27.** The battery life under normal operating conditions is estimated to be a minimum of ten (10) years. The batteries will be leak proof with sealed venting and made with thick impact resistant ABS plastic.

m. The batteries will have gravity cast, lead calcium/tin alloy cells. There will be "glass mat" AGM mat separators. There will be precise threaded copper alloy terminals. Exposed post style terminals will not be acceptable.

n. The batteries must use 90% "VRLA AGN" internal recombination technology with one way pressure relief valves and flame arrestors.

o. The battery life available prior to a re-charge being required is estimated to be 30 cycles or more at temperatures at or above 70 degrees Fahrenheit with a loading factor of 70% or less.

p. **Battery Chargers** - The on board battery charges on each column will provide a three stage charging program that will begin with a 14.4 volt "Boost Charge" followed by a start up charge of 13.6 volts with the LED indicator lights red. After a couple of hours of charging the charging current will gradually decrease. After 90% of the maximum value is reached the chargers will go into a "floating charge" state with green LED's.

q. The chargers will be UL certified and have built in cooling while providing: a) built in overheating b) short circuit protection c) over loading and over voltage (charging) protection.

8. Safety systems :

a. An independent and fail safe mechanical safety system device (lock) shall be present on each column. This safety device (lock) shall be totally independent from the lifting drive system.

b. A locking pawl and ratchet system shall automatically engage and insure proper and automatic locking at any height and at all times. The lock will engage every 3".

c. A 24 volt solenoid valve shall release the locking pawl when the lift is the descent mode. When the lowering button is pushed the lift will automatically raise up first to allow the locks to release before lowering.

d. Emergency release and lowering of the columns will be possible in the event of a power loss.

e. The single lowering control button will allow the lifting carriages to descend to a level of approximately 18" from the floor. The lift will then stop and require the operator to press two (2) control buttons simultaneously. The descent from this point will include an audible alarm

9. Steering System:

a. The steering assembly shall consist of a fully automatic spring-loaded steering handle. The steering handle shall lock the movement of the rear wheel when it is in the vertical position.

b. The steering assembly shall allow the lift to be moved around the shop floor without need to pump up a hydraulic jack or pellet jack mechanism.

c. The single steering wheel will be steel with a nylon tread material. The wheel will have bearings to allow for easy movement.

12. Control System:

d. The 5" colour LED programmable control from "**QEM Wiki"** will have a 256 colours with 800 x 480 pixels. There will be a 32 bit processor with 8 MB of RAM and 8MB of Flash memory. There will be a USB mini serial port for input and diagnostics. There will be variable baud rate capabilities. The control will have a minimum of nine (9) LED diagnostics lights with up to 22 possible error messages.

e. The control system shall communicate to each column using **"TEKIMA**" 10 mm copper with tin protection coaxial cable with horizontal push in style 3 pole polyamide IP40 quick connectors. The cable will be flame and oil resistant PVC.

f. ***Wireless Option***: device connectivity (when not wired with a common shielded communication cable) will be granted by Digi X BEE 3 802.15.4 with a point-to multipoint protocol designed to speed up the connection and keep the safer the transmission of data. RF data rate has to be at least 250kbps. Emitter and Receiver has to be certified for US, CANADA and Europe applications.

The radio control transmission, via multiple channel selection, has also to grant control on the devices even in presence of similar systems working in the surroundings.

g. There will be retractable communication cable reels located on each column that automatically recoil the communication cables out of the operator's way. (optional)

h. The columns will automatically re-establish communication between columns if the signal is dropped for any reason.

i. Synchronization for the columns will be regulated by using industrial "**Baumer"** Hall Effect Can Open style redundant transducers. They must be robust, temperature / moisture resistant and shock resistant 24-volt NEMA 6 IP67 approved.

j. All internal circuits within the control will be 24 volts.

k. All mobile column controls will be water resistant to an IP65 or NEMA 4 standard.

l. The control will come with a color LCD display screen that displays both graphic and numerical information to the operator.

m. The operator will first select the mode to be used: grouped set, pair or single column.

n. **Control Features:** The control will have a position memory and will not have to be re-configured after each use.

o. The graphical display will show the lifting height of each column as it is operated.

p. The display can be set to operate with metric or imperial measure and in four (4) languages.

q. The display will include the actual location of the locking pawl in relation to the locking ladder.

r. The control will provide the lifting weight of each column on a digital display.

s. There will be standard control speed to raise the lift and a "slow speed" **snail control.**

t. The lift display will indicate the constant state of charge of the column batteries.

u. There will be an up and down button with a "park" feature to allow the column to be lowered onto a mechanical lock.

v. The lift will operate within a tolerance of .25" height differential between columns. The system automatically shuts down when this exceeds 2.5".

w. The control will have a programmable height feature that will govern the maximum raised height.

x. The lift will have a manual override to lower the lift manually in the event of a power loss.

13.

Options and Accessories:

y. Jack stands 19,000 lb. capacity screw type spring loaded with a height adjustment of between 54" and 85".

z. Jack stand 19,000 lb. capacity screw style spring loaded with a height adjustment of 39" to 62".

aa. Light truck, fore and aft, frame adapter for lifting the front and rear of a medium duty truck using two columns to a capacity of 15,000 lb.

bb. Fork lift frame adapters for material handling trucks up to 10,000 lb.

cc. Chassis lifting beam 38,000 lb. capacity with sliding adapters.

dd. Passenger car / light truck 12,000 lb. side engaging lifting adapters.

ee. LED Column tube style lighting fixtures.

# Directory of Certified Lifts

**Certified Model - Specifications**

Product Search Results - May 11, 2022

**Lift Type:** Wheel Engaging Mobile Unit / Mobile Columns

**Model Number:** MCO19B-4-76-BW

**Brand Name:** OMER

**Rated Load Capacity:** 76,000 lbs
**Column Rating:** 19000lbs.
**No. of Columns:** 4

**Certification Date:** 06/11/2021



**OMER USA Inc.**
3402 Oakcliff Rd, Suite B6 ,
Doraville 30340
(470) 529-8881

| Certified Accessories | | |
|---|---|---|
| **Model #** | **Description** | **Rated Capacity** |
| OMA-TSA | Touch Screen Version A | - |
| OMA-TSB | Touch Screen Version B | - |
| OMA-WPC | Cabinet with Door | - |
| OMA-LB | Lifting Beam | - |
| OMA-RLS4WFL | Ramps and Lift Support for 4 Wheel Fork Lift | - |
| OMA-RLS3+4WFL | Ramps and Lift Support for 3 and 4 Wheel Fork Lift | - |
| OMA-TRA | Trailer Adapter for Cross Beam Kit | - |
| OMA-FEA | Frame Engaging Adapter | - |
| OMA-COF | Cab-Off Adapters for Pickup | 3000 lbs. |
| OMA-IBC | Increased Battery Capacity | - |
| OMA-WK | Weighing Kit | - |
| OMA-LEDLK-X | LED Lighting (X= Number of Tubes) | - |
| OMA-ST-200 | Stands | 20000 lbs. |
| OMA-ODD | Odd number of columns | - |
| OMA-20IF | Fork Kit 20" Long | 14500 lbs. |
| OMA-22IF | Fork Kit 22" Long | 12000 lbs. |
| OMA-UWRS | Kit upgrade battery to wireless | - |
| OMA-UWED | Kit upgrade to wired | - |

**Every current ALI certified lift model is listed in this ALI Directory of Certified Lifts. If it's not listed, it's not**

Certificate N. IT07/1425

The quality management system of

**O.ME.R. S.p.A.**

Via Galileo Galilei, 20 - 30035 MIRANO (VE) - Italy

has been assessed and certified as meeting the requirements of

**ISO 9001 / UNI EN ISO 9001:2008**

For the following activities

**Design, manufacturing, installation and service of hoists for the automotive industry and parking systems.**

**EA Sector: 18**

This certificate is valid from 18/12/2013 until 06/12/2016 and remains valid subject to satisfactory surveillance audits.
Re certification audit due before 06/12/2016.
Issue.3. Certified since 06/12/2007.

Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2008 requirements may be obtained by consulting the organization.

Authorized by
Paola Santarelli

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