



**CONTENTS:**

|          |  |
|----------|--|
| Page 1   | Specifications                               |
| Page 2   | Warning Information                          |
| Page 3-4 | Assembly                                     |
| Page 4-5 | Operating Instructions                       |
| Page 5   | Preventative Maintenance and Troubleshooting |
| Page 6   | Diagram                                      |
| Page 7   | Replacement Parts                            |



## SPECIFICATIONS

|                  |                         |
|------------------|-------------------------|
| Capacity         | 22 Ton                  |
| Low Height       | 8.85"                   |
| High Height      | 17.50" (w/o adjustment) |
| Screw Adjustment | 4.10"                   |
| Adapters         | .8"/2.4"/3.9"           |
| Ram Travel       | 4.70"                   |
| Handle Length    | 49.84"                  |
| Overall Length   | 69.49"                  |
| Overall Width    | 13.46"                  |
| Weight           | 86 lbs                  |



### **WARNING:**

**Read all instructions and safety warnings before operating this equipment. Failure to follow the instructions and safety warnings may result in personal injury or property damage.**

### **WARNING**

The use of portable automotive lifting devices is subject to certain hazards that can not be prevented by mechanical means, but only by the use of care and common sense. It is essential to have qualified personnel involved in the use and operation of this lifting equipment that have been trained and qualified in its safe operation and proper use. Examples of hazards are dropping, tipping, or slipping of motor vehicles or any of their components caused by improperly securing loads, overloading, off-centered loads, use on poor surfaces, and using the equipment for a purpose for which it was not designed.

It is the responsibility of the owner and operator to study and understand this product and follow the safety instructions prior to operating this equipment. If the operator is not fluent in English, the product and safety instructions shall be read and discussed in the operator's native language by the purchaser, owner, or his designee.

A copy of these instruction/warnings should be kept intact and located in a convenient location for future reference.

- Read, study, and understand all instructions before operating this device
- Inspect the jack prior to each use. Do not use jack if damaged, is in poor condition, visible signs of leaking hydraulic fluid, or unstable due to loose or missing hardware.
- Maximum load is 22 tons. Do not exceed rated capacity.
- Wear ANSI approved eye protection.
- Perform lift on a hard and level surface.
- Do not move the vehicle while placed under the jack.
- Lift only areas of the vehicle as specified by the vehicle manufacturer.
- This jack is for lifting purposes only. Use jack stands of the correct capacity rating to support the vehicle.
- No modifications should be made to this product.
- Failure to heed these instructions may result in serious or fatal personal injury and/or property damage.



## **ASSEMBLY**

### **PLEASE REFER TO THE EXPLODED VIEW DRAWINGS ON PAGE 6 IN ORDER TO IDENTIFY PARTS**

1. 1. Feed the orange hose (#63) and black hose (#64) coming out of the bottom of the handle connector (#79) thru the handle-2 (#52) while at the same time lining up the hole in the handle-1 (#52) with the hole in the handle connector (#55.) Secure them together with the screw (#54.)
2. Thread two nuts (#53) all the way on the bottom of the tie rod (#50.) Thread the bottom of the tie rod all the way inside the slotted pin (#49.) Now tighten one nut (#53) down on top of the slotted pin (#49) and tighten. Slip the spring (#51) down on the tie rod (#50.) Insert the tie rod (#50) thru the bottom of the bracket that is welded to the handle-1 (#52) so that the spring is trapped between the bracket and the nuts (#53) that are tightened against the slotted pin (#49.) Compress the spring until the cross hole in the tie rod (#50) is visible on the other side of the welded bracket. Finally install the R-pin (#71) thru the hole.
3. Thread another nut (#53) all the way on connector (#56.) Hold the handle lock (#58) down and away from handle-1 (#60) while simultaneously threading the connector (#56) onto the tie rod (#50.)
4. Raise the handle lock (#58) up so the slotted pin (#49) does not come in contact with any of the three holes in the adjustable frame (#7.) Remove the screw (#73) from the handle socket (#11.) Insert the handle-1 (#52) in the handle socket (#11) while simultaneously inserting the slotted pin (#49) in the handle socket (#11) guide holes. Make sure the hole in the lower portion of the handle-1 (#52) aligns with the threaded hole in the handle socket (#11) and secure them together with the screw (#73.) Move the handle up and down while simultaneously pulling the handle lock down so the slotted pin (#49) will engage with any of the three locking holes in the adjustable frame (#7.) Make sure the slotted pin will engage all three holes. It might be necessary to adjust the threaded connection between the tie rod and connector (#50 and #56) to get proper engagement. After final adjustment tighten the nut (#53) to secure the connection.
5. There are two air hoses that must be firmly inserted into connections (#48) and (#84.) The orange hose (#63) fits into the highest located coupler while the black hose (#64) fits into the lower located coupler.
6. Install the air quick disconnect of your choice in the switch valve (#65.) To maximize air pressure pipe tape around the disconnect threads is recommended.
7. Install the adapter plate (#72) on the handle-1 (#52) as shown on the diagram
8. Due to the back pressure release system design of this jack the hydraulic system rarely becomes air bound. Indication of an air bound system is a ram that does not rise smoothly. In extreme cases air can be purged by following this procedure:
  - a. Raise the piston (#32) to maximum height and then lower it all the way down by following activation directions on top of the handle.
  - b. Repeat steps "a" several times until air is purged from the system.



## **WARNING:**

Ensure that you read and understand all safety instructions and warnings before use.

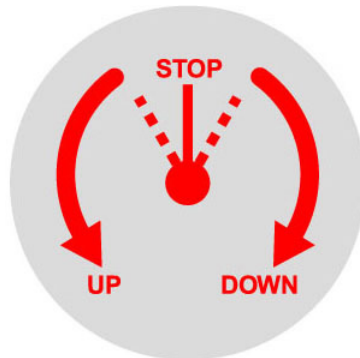
## **OPERATING INSTRUCTIONS**

1. Become familiar with the identification and function of the jack components:
  - a. The ram (#32) is the shaft that comes out of the jack when you rotate the air lever to the left.
  - b. The ram (#32) is equipped with an extension screw which can be unscrewed to extend from the ram if there is not enough hydraulic stroke to raise the load to the desired height. If additional height is required extension adapters can be inserted in the hole on top of the extension screw.
2. Apply the emergency brake and use wheel chocks to block all wheels to prevent movement of the vehicle being lifted.
3. Connect the quick coupler into a shop air supply hose. In most cases 110-120 PSI air pressure will lift the maximum rated capacity.
4. Position the jack at the designated lift point. Estimate the required ram travel to raise the vehicle to the desired height. If the desired vehicle height exceeds the entire ram travel unscrew the extension screw to make up the difference and add an extension adapter if necessary.
5. Lock the handle in a position that will not interfere with the vehicle when raised or lowered. Keep the handle in that locked position until the work is completed and you are ready to remove the jack from use.
6. With the jack in the lowered position push the jack under the vehicle. **IMPORTANT:** Use the vehicle's manufacturer's recommend lifting procedures and lifting points before starting.
7. Rotate the air lever to the left until the top of the ram comes close to the designated lift point. Make sure the designated lift point is flat, parallel to the ground, and free from grease or debris. Proceed with pumping the jack in order to lift the vehicle to the desired height. During use inspect the position of the jack in relation to the ground and the ram in relationship to the load. If conditions look to be unstable slowly lower the load completely to make appropriate changes.
8. When the vehicle or load is lifted to its desired height place safety stands (jack stands) in their designated locations and adjust the stands support columns as close to the designated vehicle support points as possible. Although jack stands are individually rated they are not to be used in a matched pair to support one end of the vehicle only. Rotate the air lever to the left to lower the vehicle onto the safety stands. After the work is done rotate the air lever to the right until the vehicle or load is high enough to remove the safety stands.



## OPERATING INSTRUCTIONS (cont'd)

9. Rotate the air lever to the right to lower the vehicle or load down to the ground.
10. When work is done disconnect the quick coupler from the air source.



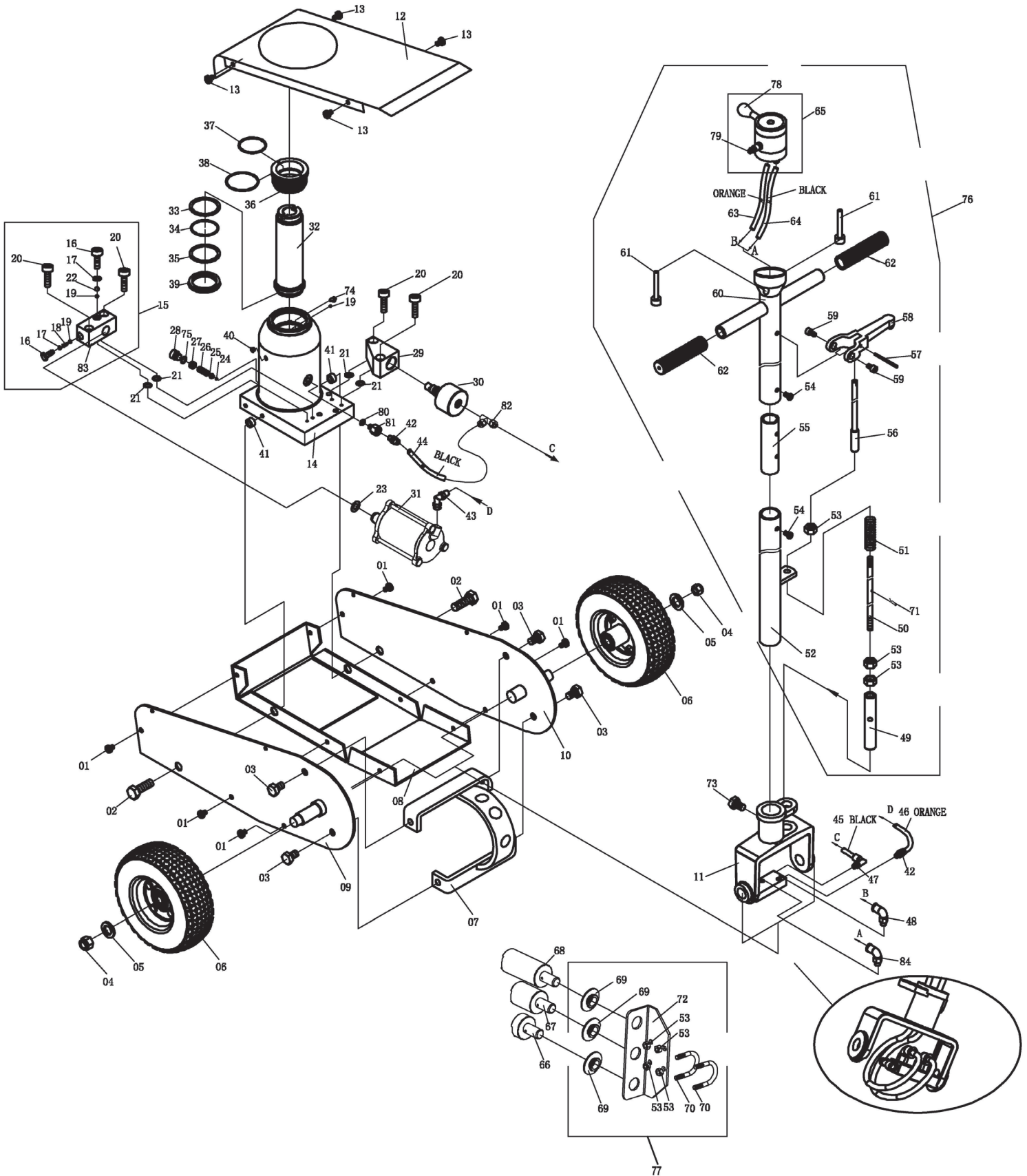
## PREVENTATIVE MAINTENANCE

1. Always store the jack in a well protected area where it will not be exposed to inclement weather, corrosive vapors, or other harmful elements.
2. Keep ram and extension screw fully lowered and periodically lubricate the joints, extension screw, and all moving parts with a general purpose grease.
3. Inspect the jack before each use. Do not use the jack if any component is cracked, broken, bent, or shows sign of damage.
4. Keep saddle area clean and free of grease or dirt.
5. It should not be necessary to refill the hydraulic fluid reservoir unless there is an external leak. If a leak is found or other repairs are necessary please go to [www.affjaxx.com](http://www.affjaxx.com) and click on "Service Depots."
6. Empty water separator on the air source regularly to prevent air supply contamination.
7. Do not attempt to make any hydraulic repairs unless you are a qualified hydraulic repair person that is familiar with this equipment.

| PROBLEM   | CHECK FOR   |
|---|---|
| 1. Unit fails to operate on first try or operates irregularly | Purge air from hydraulic system by following procedure under SETUP  |
| 2. Unit will not lift to full height                          | Purge air from hydraulic system as above<br>Check oil level in reservoir<br>Leaking hydraulic ram<br>Kinked or damaged air line |
| 3. Air passes thru jack but air motor does not operate        | Insufficient air pressure<br>Torn or damaged air hose   |
| 4. Unit still does not operate                                | Contact an AFF authorized repair depot  |



# VIKING





# VIKING

|    |                  |    |
|----|------------------|----|
| 1  | Bolt             | 10 |
| 2  | Bolt             | 2  |
| 3  | Bolt             | 4  |
| 4  | Nut              | 2  |
| 5  | Washer           | 2  |
| 6  | Wheel            | 2  |
| 7  | Adjustable frame | 1  |
| 8  | Base plate       | 1  |
| 9  | Left side plate  | 1  |
| 10 | Right side plate | 1  |
| 11 | Handle socket    | 1  |
| 12 | Plate            | 1  |
| 13 | Screw            | 1  |
| 14 | Pump plate       | 1  |
| 15 | Base connector   | 1  |
| 16 | Screw            | 2  |
| 17 | Washer           | 2  |
| 18 | Spring           | 1  |
| 19 | Steel ball       | 3  |
| 20 | Screw            | 4  |
| 21 | O-ring           | 4  |
| 22 | Steel ball       | 1  |
| 23 | Washer           | 1  |
| 24 | Copper ball      | 1  |
| 25 | Steel ball base  | 1  |
| 26 | Spring           | 1  |
| 27 | Screw            | 1  |
| 28 | Screw            | 1  |
| 29 | Valve body       | 1  |
| 30 | Release valve    | 1  |
| 31 | Air pump         | 1  |
| 32 | Piston           | 1  |
| 33 | Nylon ring       | 1  |
| 34 | O-ring           | 1  |
| 35 | Ring             | 1  |
| 36 | Ring             | 1  |
| 37 | O-ring           | 1  |
| 38 | O-ring           | 1  |
| 39 | Ring             | 1  |
| 40 | Plug             | 1  |
| 41 | Heel block       | 2  |
| 42 | Connection       | 2  |

|    |                      |   |
|----|----------------------|---|
| 43 | Connection           | 1 |
| 44 | Hose                 | 1 |
| 45 | Hose                 | 1 |
| 46 | Hose                 | 1 |
| 47 | Connection           | 1 |
| 48 | Connection           | 2 |
| 49 | Rod                  | 1 |
| 50 | Tie rod              | 1 |
| 51 | Spring               | 1 |
| 52 | Low handle connector | 1 |
| 53 | Nut                  | 7 |
| 54 | Screw                | 2 |
| 55 | Handle connector     | 1 |
| 56 | Connector            | 1 |
| 57 | Pin                  | 1 |
| 58 | Handle               | 1 |
| 59 | Screw                | 2 |
| 60 | Up handle connector  | 1 |
| 61 | Screw                | 2 |
| 62 | Handle sleeve        | 2 |
| 63 | Hose                 | 1 |
| 64 | Hose                 | 1 |
| 65 | Switch valve         | 1 |
| 66 | Top rod              | 1 |
| 67 | Top rod              | 1 |
| 68 | Top rod              | 1 |
| 69 | Top rod protector    | 3 |
| 70 | Bolt                 | 2 |
| 71 | R-pin                | 1 |
| 72 | Plate                | 1 |
| 73 | Screw                | 1 |
| 74 | Shutter              | 1 |
| 75 | O-ring               | 1 |
| 76 | Handle assembly      | 1 |
| 77 | Top frame assembly   | 1 |
| 78 | Handle sleeve        | 1 |
| 79 | Connector            | 1 |
| 80 | Ring                 | 1 |
| 81 | Connector            | 1 |
| 82 | Connection           | 1 |
| 83 | Base connector       | 1 |
| 84 | Connection           | 1 |

AFF's Viking brand is a family of lifting equipment designed for the cost-conscious shop owner or DIYer who still wants the quality and dependability they have come to expect from AFF. Since being introduced in 1969 Viking has become synonymous with value and performance.



# VIKING

## 22 TON TRUCK AXLE JACK MODEL 3322

- Speed control knob located directly on the handle for convenient raising and lowering of the hydraulic ram
- Jumbo 9" tires provide easy mobility on any surface
- Handle locks in 3 different positions for easy usage, transport, and storage
- Advanced welding technology on ram and cover provides leak free operation and long shop life
- Front handle for better positioning of jack under lift point



| MODEL | CAPACITY (Tons) | LOW HEIGHT | HIGH HEIGHT | CHASSIS LENGTH | OVERALL WIDTH (front) | OVERALL WIDTH (rear) | SHIP WEIGHT |
|-------|-----------------|------------|-------------|----------------|-----------------------|----------------------|-------------|
| 3322  | 22.0            | 5"         | 15.5"       | 22"            | 5.5"                  | 8.5"                 | 77 lbs      |





## 2.5 TON FLOOR JACK

### MODEL 3001

- Ideal for weekend mechanics and other DIY applications
- 2 pc 50-1/4" handle for easy maneuvering and storage
- Durable star gear drive release valve control
- Optional transmission adapter (Model 3165)
- Optional cross beam adapter (Model 3167)



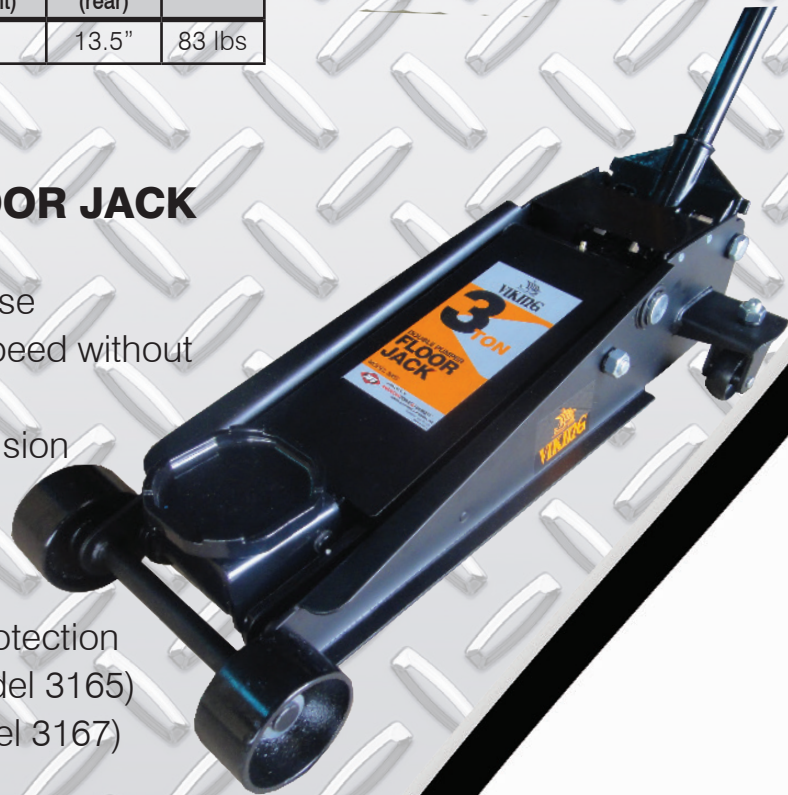
# VIKING

| MODEL | CAPACITY (Tons) | LOW HEIGHT | HIGH HEIGHT | CHASSIS LENGTH | OVERALL WIDTH (front) | OVERALL WIDTH (rear) | SHIP WEIGHT |
|-------|-----------------|------------|-------------|----------------|-----------------------|----------------------|-------------|
| 3001  | 2.5             | 5.5"       | 19.25"      | 25.5"          | 8"                    | 13.5"                | 83 lbs      |

## 3 TON DOUBLE PUMPER FLOOR JACK

### MODEL 3003

- Ideal for general automotive shop use
- Twin hydraulic system maximizes speed without compromising performance
- Universal joint technology and precision release valve for added control
- 2 pc 50-1/4" handle for easy maneuvering and storage
- Pinned saddle for added vehicle protection
- Optional transmission adapter (Model 3165)
- Optional cross beam adapter (Model 3167)



| MODEL | CAPACITY (Tons) | LOW HEIGHT | HIGH HEIGHT | CHASSIS LENGTH | OVERALL WIDTH (front) | OVERALL WIDTH (rear) | SHIP WEIGHT |
|-------|-----------------|------------|-------------|----------------|-----------------------|----------------------|-------------|
| 3003  | 3.0             | 5"         | 21"         | 28.5"          | 9"                    | 13.5"                | 101 lbs     |





# MODEL 3322- VIKING 22 TON AIR/HYDRAULIC AXLE JACK

UPDATED 12-05

| PART<br>ORDER NUMBER | KIT DESCRIPTION    | KIT INCLUDES |                    |
|----------------------|--------------------|--------------|--------------------|
|                      |                    | REF. #       | DESCRIPTION        |
| 3322-63              | HOSE KIT           | 63           | HOSE KIT           |
|                      |                    | 64           |                    |
| 3322-76              | HANDLE ASSM.       | 76           | HANDLE ASSM.       |
| 3322-65              | SWITCH VAVLE       | 65           | SWITCH VAVLE       |
| 3322-6               | WHEEL              | 6            | WHEEL              |
|                      |                    | 5            |                    |
|                      |                    | 4            |                    |
| 3322-7               | ADJUSTABLE FRAME   | 7            | ADJUSTABLE FRAME   |
| 3322-73              | HANDLE SOCKET BOLT | 73           | HANDLE SOCKET BOLT |
| 3322-11              | HANDLE SOCKET      | 11           | HANDLE SOCKET      |
| 3322-31              | AIR PUMP           | 31           | AIR PUMP           |
| 3322-77              | TOP FRAME ASSM KIT | 77           | TOP FRAME ASSM KIT |
| 3322-30              | RELEASE VALVE      | 30           | RELEASE VALVE      |
| 3322-32              | PISTON             | 32           | PISTON             |
| 3322-RK              | REPAIR KIT         |              | REPAIR KIT         |
| 3322-84              | CONNECTION         | 84           | CONNECTION         |
| 3322-48              | CONNECTION         | 48           | CONNECTION         |
| 3322-45              | HOSE BLACK         | 45           | HOSE BLACK         |
| 3322-46              | HOSE ORANGE        | 46           | HOSE ORANGE        |
| 3322-42              | CONNECTION         | 42           | CONNECTION         |
| 3322-47              | CONNECTION         | 47           | CONNECTION         |
| 3322-44              | HOSE BLACK         | 44           | HOSE BLACK         |
| 3322-43              | CONNECTION         | 43           | CONNECTION         |
| 3322-81              | CONNECTOR          | 81           | CONNECTOR          |
| 3322-82              | CONNECTION         | 82           | CONNECTION         |
| 3322-29              | VALVE BODY         | 29           | VALVE BODY         |
| 3322-HYD             | HYDRAULIC UNIT     |              | HYDRAULIC UNIT     |
| 3322-62              | HANDLE SLEEVE      | 62           | HANDLE SLEEVE      |
| 3322-54              | SCREW              | 54           | SCREW              |
| 3322-83              | BASE CONNECTOR     | 83           | BASE CONNECTOR     |
| 3322-36              | RING               | 36           | RING               |

\* ONLY PARTS WITH A "PART ORDER NUMBER" ARE AVAILABLE FOR SALE.

# MODEL 3322 - VIKING 22 TON AIR/HYDRAULIC AXLE JACK



ORDER NUMBER

KIT DESCRIPTION

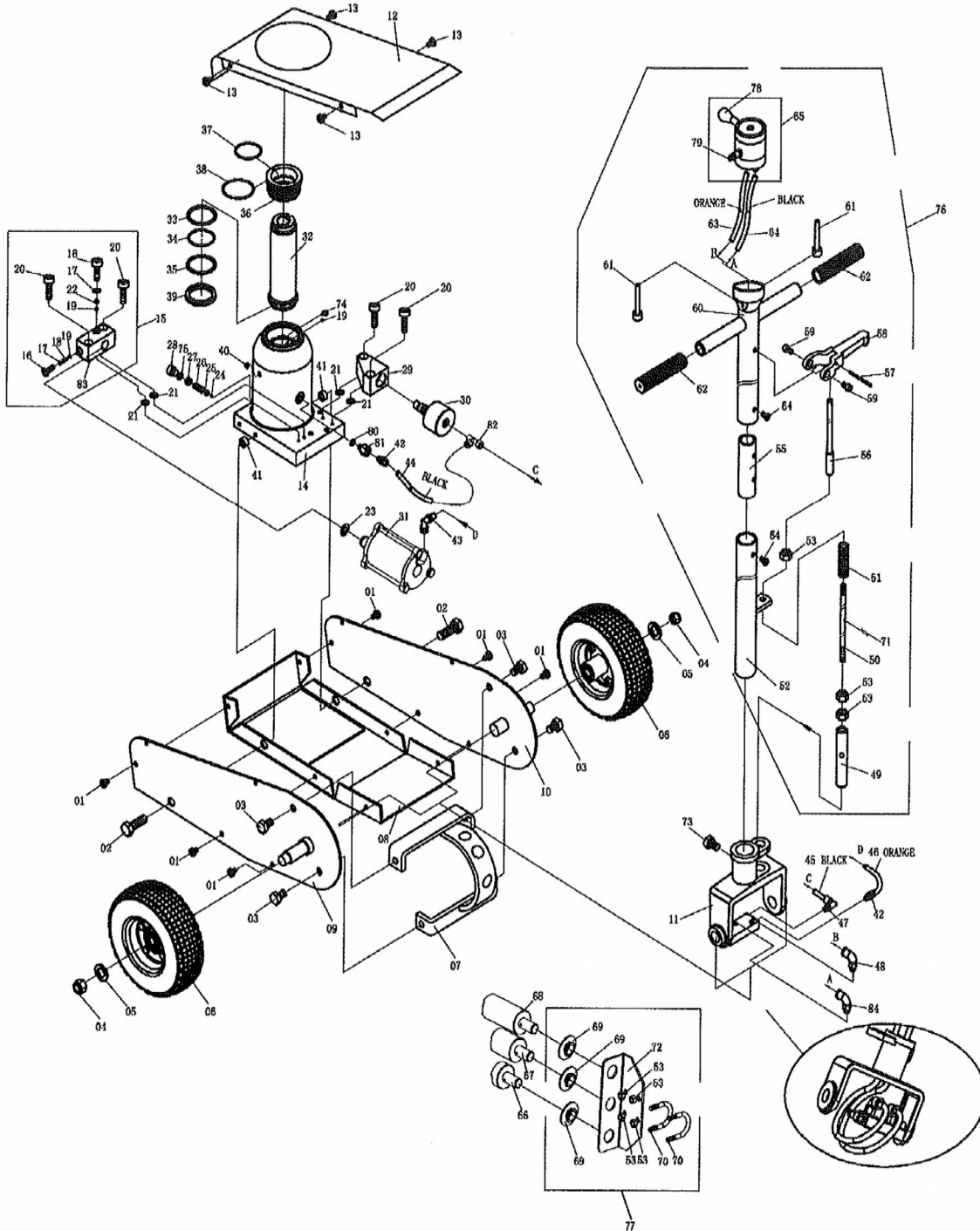
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KIT INCLUDES

DESCRIPTION



## VIKING



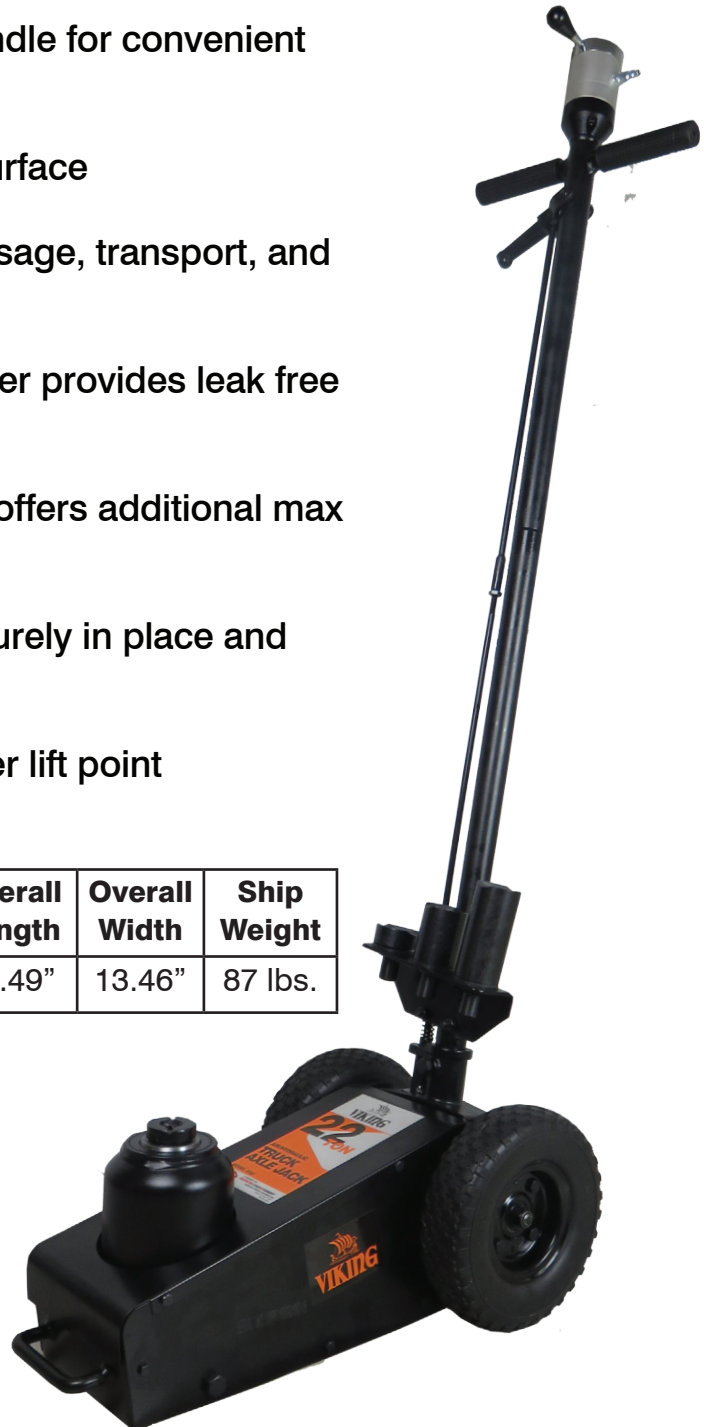


**AMERICANFORGE&FOUNDRY™**

## **22 Ton Air Assist Truck Axle Jack Model 3322**

- ✓ Speed control knob located directly on the handle for convenient raising and lowering of the hydraulic ram
- ✓ Jumbo 9" tires provide easy mobility on any surface
- ✓ Handle locks in 3 different positions for easy usage, transport, and storage
- ✓ Advanced welding technology on ram and cover provides leak free operation and long shop life
- ✓ Heat treated extensions in 0.8, 2.5, and 4 inch offers additional max height configurations
- ✓ Special rubber grommets hold extensions securely in place and prevents loss
- ✓ Front handle for better positioning of jack under lift point

| Capacity (tons) | Low Height | High Height | Screw Adjust. | Ram Travel | Handle Length | Overall Length | Overall Width | Ship Weight |
|-----------------|------------|-------------|---------------|------------|---------------|----------------|---------------|-------------|
| 22              | 8.85"      | 21.70"      | 4.10"         | 4.70"      | 49.84"        | 69.49"         | 13.46"        | 87 lbs.     |



When it comes to quality car jacks, AFF is the brand you can depend on.