

PLEASE READ THE ENTIRE CONTENTS OF THIS MANUAL PRIOR TO INSTALLATION AND OPERATION. BY PROCEEDING YOU AGREE THAT YOU FULLY UNDERSTAND AND COMPREHEND THE FULL CONTENTS OF THIS MANUAL. FORWARD THIS MANUAL TO ALL OPERATORS. FAILURE TO OPERATE THIS EQUIPMENT AS DIRECTED MAY CAUSE INJURY OR DEATH.

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**READ FIRST** 

# **INSTALLATION AND OPERATION MANUAL**

FOLDING ENGINE STAND 2,000 Lb. Capacity

MODEL: RES-1TF



#### SHIPPING DAMAGE CLAIMS

When this equipment is shipped, title passes to the purchaser upon receipt from the carrier. Consequently, claims for the material damaged in shipment must be made by the purchaser against the transportation company at the time shipment is received.

#### **BE SAFE**

Your new Engine Stand was designed and built with safety in mind. However, your overall safety can be increased by proper training and thoughtful operation on the part of the operator. DO NOT operate or repair this equipment without reading this manual and the important safety instructions shown inside.



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# FOLDING ENGINE STAND

# **WARRANTY POLICY**

Ranger Products™ are backed by over 35 years of manufacturing experience. Every Folding Engine Stand bearing the Ranger™ name is sold with the following warranty.

- Each Ranger Product™ is warranted to be free from defects in workmanship and material for a period of one year from the date of shipment provided that a written claim for such defect is made within that time.
- This warranty does not cover damage or defects caused by carelessness of the operator, misuse, abuse or abnormal use which in any way impairs the proper functioning of the equipment or by the use or addition of parts not manufactured by Ranger Products™ or its suppliers.

THIS WARRANTY IS EXPRESSLY MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS OR A PARTICULAR PURPOSE.

If your Ranger Products<sup>™</sup> machine is not functioning properly, call your Ranger Products<sup>™</sup> dealer immediately. On some occasions, an independent contractor may be hired to perform repairs. Within the warranty period, a customer should not hire his own contractor unless it is authorized in writing by Ranger Products<sup>™</sup>.

If it is necessary to return equipment for repairs, your dealer will advise you to do so. When returning equipment for repairs, see that machines are properly crated and protected, and prepay transportation.

Defective parts replaced at no charge must be returned to your dealer or Ranger Products™ within 60 days of the date that the replacement parts are shipped; otherwise, you must pay for the replacement parts at the current selling price.

## **DEFINITIONS OF HAZARD LEVELS**

Identify the hazard levels used in this manual with the following definitions and signal words:



Watch for this symbol: It means: Immediate hazards which will result in severe personal injury or death.



Watch for this symbol: It means: Hazards or unsafe practices which could result in severe personal injury or death.



Watch for this symbol: It means: Hazards or unsafe practices which may result in minor personal injury or product or property damage.



Failure to follow danger, warning, and caution instructions may lead to serious personal injury or death to operator or bystander or damage to property.

Do not operate this machine until you read and understand all the dangers, warnings and cautions in this manual.



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH IF NOT FOLLOWED COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS AND CAN CAUSE PERSONAL INJURY OR DEATH. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE THIS MACHINE.

## OPERATOR PROTECTIVE EQUIPMENT

Personal protective equipment helps keep the equipment operator safe. However, equipment does not take the place of safe operating practices. Always wear durable work clothing. Shop aprons or shop coats may also be worn, however

loose fitting clothing should be avoided. Tight fitting leather gloves are recommended to protect operators. Sturdy leather work shoes with steel toes



and oil resistant soles should be used by personnel to help prevent injury in typical shop activities.

Eye protection is essential during installation and operation. Safety glasses with side shields, goggles, or face shields are acceptable. Back belts provide support during lifting activities and are also helpful in providing operator protection. Consideration should also be given to the use of hearing protection if activity is performed in an enclosed area, or if noise levels are high.



### OWNER'S RESPONSIBILITY

To maintain machine and user safety, the responsibility of the owner is to read and follow these instructions:

- ♦ Follow all installation instructions.
- Make sure installation conforms to all applicable Local, State, and Federal Codes, Rules, and Regulations; such as State and Federal OSHA Regulations and Flectrical Codes.
- ♦ Carefully check the unit for correct initial function.
- ♦ Read and follow the safety instructions. Keep them readily available for machine operators.
- Make certain all operators are properly trained, know how to safely and correctly operate the unit, and are properly supervised.
- Allow unit operation only when all parts are in place and operating safely.
- Carefully inspect the unit on a regular basis and perform all maintenance as required.
- Service and maintain the unit only with authorized or approved replacement parts.
- ♦ Keep all instructions permanently with the unit and all decal's on the unit clean and visible.

## IMPORTANT SAFETY INSTRUCTIONS

Read these safety instructions entirely!



- READ AND UNDERSTAND all safety warning procedures before operating equipment.
- 2. **KEEP HANDS AND FEET CLEAR**. Remove hands and feet from any moving parts.
- 3. **KEEP WORK AREA CLEAN**. Cluttered work areas invite injuries.
- Consider work area environment. Do not expose equipment to rain. DO NOT use in damp or wet locations. Keep area well lit.
- 5. **ONLY TRAINED OPERATORS** should operate this equipment. All non-trained personnel should be kept away from work area. Never let non-trained personnel come in contact with or operate machine.
- 6. **USE MACHINE CORRECTLY**. Improper use can lead to injury.
- 7. **DRESS PROPERLY**. Non-skid, steel-toe footwear is recommended when operating the machine.
- 8. **MAINTAIN WITH CARE**. Keep unit clean for better and safe performance. Follow manual for proper lubrication and maintenance instructions.
- 9. **DO NOT LOAD** this Engine Stand beyond it's rated capacity.
- 10. **Before Moving** the Engine Stand, ensure the load is stable.
- 11. This Engine Stand is designed for use only on hard level surfaces capable of sustaining the load.
- 12. **STAY ALERT**. Watch what you are doing. Use common sense. Be aware.
- 13. **CHECK FOR DAMAGED PARTS**. Check for condition of all moving parts, breakage of parts or any condition that may affect the machines operation. Do not use if any component is broken or damaged.
- 16. **NEVER** remove safety related components or device from the machine. Do not use if safety related components are damaged or missing.
- 17. **Immediately Replace** unreadable and missing warning labels.
- 18. **NO MODIFICATIONS** should be made to this Engine Stand. Repairs to this equipment should only be performed by a qualified technician.



### **UN-CRATING / PACKING INSTRUCTIONS**

Carefully remove the crating and packing materials including all skid and pallet fasteners. Be careful when cutting steel banding material as items may become loose and fall, causing personal harm or injury. Always wear gloves when un-crating the machine to prevent scratches, abrasions or cuts due to the contact with packing materials. Remember to report any shipping damage to the carrier and make a notation on the delivery receipt.

## **TOOLS REQUIRED**

Adjustable Wrench or Metric open end/combination wrenches.

# INSTALLATION INSTRUCTIONS

- 1. Attach the Casters (15) to the Base Frame (8) with Bolts, Washers and Nuts (9,10,11). Attach the Front and Center Wheels (15&16) to the Front Frame Legs (17) and Base (8) using the Bolts, Washers and Nuts (9,10,12).
- 2. Slide the two Front Frame Legs (17) to the Base Frame (8), and secure them in place using the Lock Pins (13) and Hair Pins (14).
- 3. Attach the vertical Post (2) to the base frame (8) using the Bolts (3), Washers and Nuts.
- 4. Attach the Support Straps (5) to the Main Post (2) using the Bolts, Nuts and Washers (4,6,7).
- 5. Attach the bottom of the Support Straps (5) to the Base Frame (8) using Bolts (3), Washers and Nuts.
- 6. Slide in the Rotating Head Plate (22) into the collar of the main Post (2), and align the holes and insert the Lock Pin (1).
- 7. Attach the Mounting Arms (21) to the Rotating Head Plate (22) using the Bolts, Washers and Nuts (19,20,6A).
- 8. Attach the Handle (18) to the top of the main post.



NEVER STAND UNDER A OBJECT THAT IS BEING LIFTED BY THE ENGINE STAND. AN OBJECT FALLING FROM THE ENGINE STAND CAN CAUSE SERIOUS INJURY.

### **OPERATION INSTRUCTIONS**

- 1. Before applying a load to the engine stand, ensure the Front Frame Legs are locked, and lock the Mounting Plate with the Lock Pin.
- 2. Attach the engine block to Mounting Head securely, according to vehicle manufacturer's specification.
- 3. Assure load is centered and secured to Mounting Plate before removing lifting device

## **FOLDING THE FRAME**

- 1. Remove Hairpins (14) from the front Lock Pins (13). Remove the front Lock Pins (13). Leave rear Ring Pins in.
- 2. Raise Legs (17) until it rests against the Base (8).
- 3. Insert the front Lock Pins (13) into the middle hole on each side of the Base Assembly (8).

**Note:** Be certain that, when unfolding, both Lock Pins (13) and Hairpins (14) are placed back in their proper places before use.

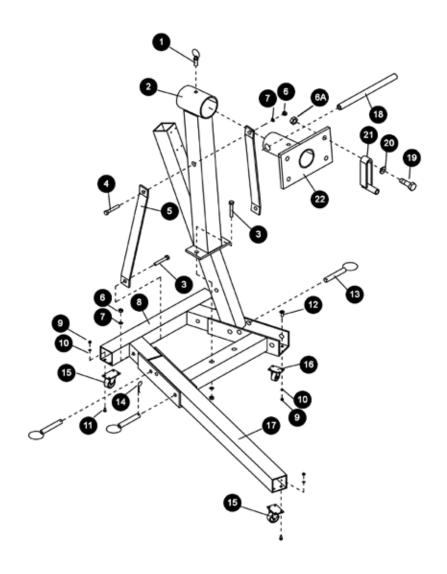
For additional copies or further information, contact:

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SPECIFICATIONS							
MODEL	CAPACITY	OVERALL	OVERALL	REAR	FRONT	SHIPPING	
NO.		HEIGHT	LENGTH	WIDTH	WIDTH	WEIGHT	
RES-1TF	2,000 lbs.	38.5"	43.5"	21"	34"	91 Lbs	
	907 Kg	978 mm	1,105 mm	533 mm	864 mm	41 Kg	



# RES-1TF PARTS LIST



PART	DESCRIPTION	QTY
1	Pin	1
2	Vertical Column	1
3	Bolt M14x90	4
4	Bolt M14x100	1
5	Support Straps	2
6	M14 Nut	5
6A	M16 Nut	4
7	φ14 Washer	5
8	Base Frame	1
9	M8 Nut	24
10	φ8 Spring Washer	24
11	Bolt M8x16	16

PART	DESCRIPTION	QTY
12	Bolt M8x18	8
13	Lock Pin	4
14	"R" Pin / Hair Pin	4
15	3 1/2" Wheel (Front & Rear)	4
16	3" Center Wheels	2
17	Frame Legs	2
18	Handle 381 mm	1
19	Bolt M16x75 10.9	4
20	ф16 Washer	4
21	Mounting Arm	4
22	Rotating Head Plate	1

MAINTENANCE / INSPECTION RECORDS



