

## MANUAL

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### SPECIFICATIONS

Capacity .....	1,000 Lbs.
Overall Length .....	38.58"
Width .....	35.83"
Height .....	36"
Shipping Weight .....	93 lbs.

## WARNING INFORMATION



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

### WARNING

WARNING: Indicates a hazardous situation which, if not avoided, could result in death or serious injury.



### IMPORTANT: READ THESE INSTRUCTIONS BEFORE OPERATING

BEFORE USING THIS DEVICE, READ THIS MANUAL COMPLETELY AND THOROUGHLY, UNDERSTAND ITS OPERATING PROCEDURES, SAFETY WARNINGS AND MAINTENANCE REQUIREMENTS.

It is the responsibility of the owner to make sure all personnel read this manual prior to using the device. It is also the responsibility of the device owner to keep this manual intact and in a convenient location for all to see and read. If the manual or product labels are lost or not legible, contact Sunex® for replacements. If the operator is not fluent in English, the product and safety instructions shall be read to and discussed with the operator in the operator's native language by the purchaser/owner or his designee, making sure that the operator comprehends its contents.

## THE NATURE OF HAZARDOUS SITUATIONS

### WARNING

The use of portable automotive lifting and support devices is subject to certain hazards that cannot be prevented by mechanical means, but only by the exercise of intelligence, care, and common sense. It is therefore essential to have owners and personnel involved in the use and operation of the equipment who are careful, competent, trained, and qualified in the safe operation of the equipment and its proper use. Examples of hazards are dropping, tipping or slipping of loads caused primarily by improperly securing loads, overloading, off-centered loads, use on other than hard level surfaces, and using equipment for a purpose for which it was not designed.

## METHODS TO AVOID HAZARDOUS SITUATIONS

### WARNING

- Read, study, understand and follow all instructions before operating this device.
- User and bystanders must wear eye protection that meets ANSI Z87.1 and OSHA standards.
- Inspect the engine stand before each use. Do not use if damaged, altered, modified, in poor condition, or has loose or missing hardware or components. Take corrective action before using the engine stand.
- Do not use beyond rated capacity.
- Use only on hard level surface capable of supporting the load.
- Make sure all mounting hardware is securely tightened and setup is stable before rotating engine.
- Always use high strength SAE grade 8 bolts for mounting engine to mounting head fingers.
- Make sure widest set of mounting head fingers are nearest the ground when mounting engine to stand.
- Assure the load is centered, balanced and secured to the mounting head and fingers. The engine's weight should be balanced within one inch of the mounting head's rotational axis.
- Adequately support the vehicle before starting repairs.
- Never loosen mounting head bolts or engine mounting bolts unless engine is supported by a crane or hoist.
- Only attachments and/or adapters supplied by Sunex® shall be used.
- Do not use stand to dolly or transport engine.
- **Do not crawl under engine or place any part of your body under engine at any time.**
- Refer to engine manufacturer's service manual for proper lifting points, mounting points and bolt sizes. Mounting bolts should be torqued at appropriate amount to maintain load.
- This product contains one or more chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. *Wash hands thoroughly after handling.*
- Failure to heed these warnings may result in serious or fatal personal injury and/or property damage.

## CONSEQUENCES OF NOT AVOIDING HAZARDOUS SITUATIONS

### WARNING

Failure to read this manual completely and thoroughly, failure to understand its OPERATING INSTRUCTIONS, SAFETY WARNINGS, MAINTENANCE INSTRUCTIONS and comply with them, and failure to comply with the METHODS TO AVOID HAZARDOUS SITUATIONS could cause accidents resulting in serious or fatal personal injury and/or property damage.

## OWNER'S MANUAL

### SETUP

**PLEASE REFER TO THE EXPLODED VIEW DRAWING IN THIS MANUAL IN ORDER TO IDENTIFY PARTS.**

1. First, install the casters (6 & 7) to the front and rear legs (1 & 15) using the hardware items 3, 4, & 5, being sure to insert bolts from the bottom side of caster plate. **IMPORTANT: All hardware that assembles items 1, 11, 15, & 39 together should be assembled loosely to ensure all bolts and pins fit through their designated holes.**
2. Attach the center beam assembly (11) to the leg assemblies (1 & 15) using hardware items 8, 9, 10 & 18.
3. Next, attach one end of brace (14) to the center beam (11) using hardware items 8, 9, 10 & 18. Make sure position of brace is as shown in diagram.
4. Place post (39) with gear box assembly onto base assembly as follows: Stand the post on the base and attach by passing bolt (8) through middle hole in the center beam assembly and welded bushing at the bottom of the post (39). Secure with hardware items 8, 9, 10 and 18. Then pass pins (12) through the hole in the beam bracket and the hole in the rear leg assembly. Secure pins with clips (13).
5. Attach the end of the brace (14) to the post using the hardware items 8, 9, 10 & 18.
6. Now tighten all hardware that assembles items 1, 11, 15 & 39 together.
7. Rotate the gear box (24) so its three holes line up with the holes in the post (39) and secure them with the hardware (22 and 23) provided. The worm box (24) should be positioned as shown in the diagram.
8. Secure fingers (16) to mounting head with hardware 9, 10, 17, 18 and 19 provided.
9. To fold engine stand, simply remove the two pins (12) and clips (13), fold brace forward, and then fold post forward. The pins and clips can be stored in open holes.

### OPERATING INSTRUCTIONS



This is the safety alert symbol used for the OPERATING INSTRUCTIONS section of this manual to alert you to potential personal injury hazards. Obey all instructions to avoid possible injury or death.

#### OPERATION:

**NOTE:** Do not mount engine to mounting plate unless both pins, (12), are in place and secured with (13) clips provided according to the ASSEMBLY INSTRUCTIONS.

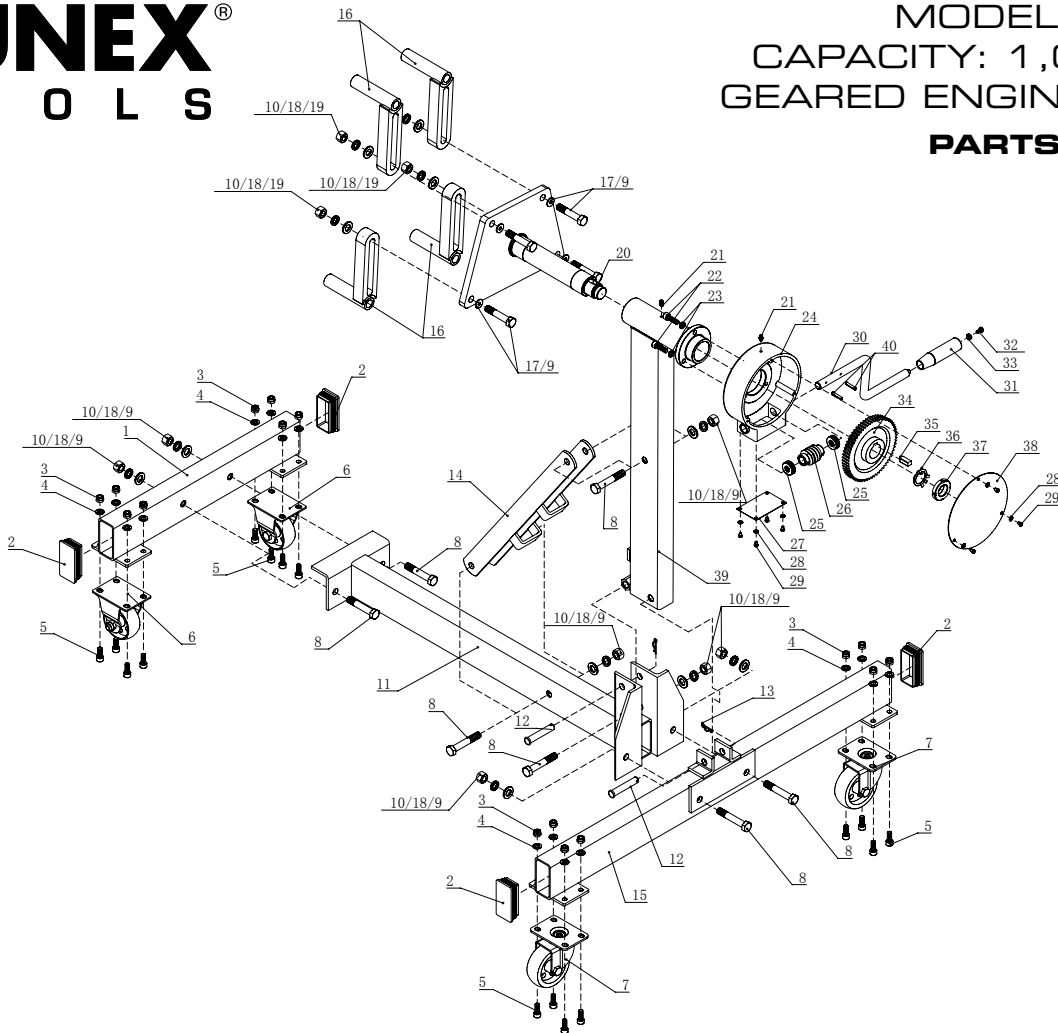
1. Consult the vehicle or engine manufacturer for service manuals and or technical bulletins that provide information on suggested engine mounting tips, proper size and type mounting bolts and the engine's center of balance. The engine's center of balance will have to be aligned with the rotational axis of the engine stand's mounting head assembly.
2. Drain oil and coolant and remove clutch bell housing and flywheel from engine before mounting. Attach an engine lifting bar or sling to the engine and secure the bar or sling to a shop crane or hoist. Slowly lift the engine from its compartment making sure no other vehicle components, wires or hoses obstruct the free movement of the engine. Raise the engine high enough so its center of balance is close to the rotational axis of the stand's mounting head.
3. Make sure, the four mounting head fingers are loosely connected to the mounting head plate. Secure the four mounting head fingers to the bell housing end of the engine with the appropriate bolts and washers. Reposition the mounting head, fingers and engine so the engine's center of balance is within one inch of the mounting head's rotational axis. Tighten all bolts to a sufficient torque requirement that prevents any slippage.
4. Slowly lower the crane or hoist so the engine stand supports full weight of the engine. To check engine balance and secure setup of the engine to the stand, slowly rotate the engine by turning the gear crank handle. If balance or setup are not stable, rotate the engine to its original position, raise the crane or hoist so the weight of the engine is removed from the stand and make the correct adjustments. After adjustments are made, tighten all bolts. This adjustment procedure may have to be duplicated several times until correct. After the setup is balanced and secure, the lifting bar or sling can be removed from crane or hoist.
5. To remove the engine from the stand, connect the lifting bar or sling to the crane or hoist and raise the engine high enough to take the weight off the stand. Carefully remove the bolts that connect the four mounting fingers to the engine. Be aware there will be a slight movement of stand as total engine weight is transferred to crane or hoist.
6. This engine stand has a folding feature that can save space or make storage easy. Just remove both pins (12) and their clips (13) so the brace (14) and post (39) can fit flat on top of the center beam assembly (11). The pins and clips can be stored in the open holes.

### PREVENTATIVE MAINTENANCE



This is the safety alert symbol used for the PREVENTATIVE MAINTENANCE section of this manual to alert you to potential personal injury hazards. Obey all instructions to avoid possible injury or death.

1. Always store the engine stand in a well protected area where it will not be exposed to inclement weather, corrosive vapors, abrasive dust, or any other harmful elements. **The engine stand must be cleaned of water, snow, sand or grit, oil, grease or other foreign matter before using.**
2. Lubricate the wheels, casters, zerk fittings, gear and rotating shaft with a general purpose grease.
3. Every engine stand owner is responsible for keeping the engine stand label clean and readable. Use a mild soap solution to wash the external surfaces of the stand. Contact Sunex for a replacement label if your stand's label is not readable.
4. Inspect the stand before each use. Do not use the stand if any component is cracked, broken or bent. Do not use the stand if it has loose or missing hardware or components, or is modified in any way. Take corrective action before using the stand again.



ITEM NO.	PART NO.	DESCRIPTION	QTY
1		Front Leg Assembly	1
2	RS8300GB02	Plastic Plug	4
3	**	M8 Locking Nut	16
4	**	Washer	16
5	**	M8*20 Screw	16
6	RS8300GB06	Caster	2
7	RS8300GB07	Front wheel (Locking)	2
8	**	M12*65 Screw	7
9	**	Washer	11
10	**	M12 Nut	11
11		Center Beam Assembly	1
12	**	Pin	2
13	**	R-Clip	2
14	RS8300GB14	Brace	1
15		Rear Leg Assembly	1
16	RS8300GB16	Finger	4
17	**	M12*55 Screw	4
18	**	Spring Washer	11
19	**	Washer	4

ITEM NO.	PART NO.	DESCRIPTION	QTY
20		Shaft	1
21	RS8300GB21	Grease Fitting	2
22	**	M8*25 Screw	3
23	**	Spring Washer	3
24	*	Worm Box	1
25	*	Ball Bearing	2
26	*	Worm	1
27	*	Worm Box Cover (lower)	1
28	*	Washer	7
29	*	M4*6 Screw	7
30	*	Worm Crank	1
31	*	Worm Crank Grip	1
32	**	M5*10 Screw	1
33	**	Washer	1
34	*	Worm Gear	1
35	*	Flat Key	1
36	*	Lock washer	1
37	*	Nut	1
38	*	Worm Box Cover (upper)	1
39		Post	1
40	*	Pin	2

\* Available only in worm box assembly, part #RS8300GBWB

\*\* Available only in bolt kit, part #RS8300GBBK

Only items identified by part number are available separately.

All bolts and pins need to be assembled loosely to fit properly and then tightened before use.