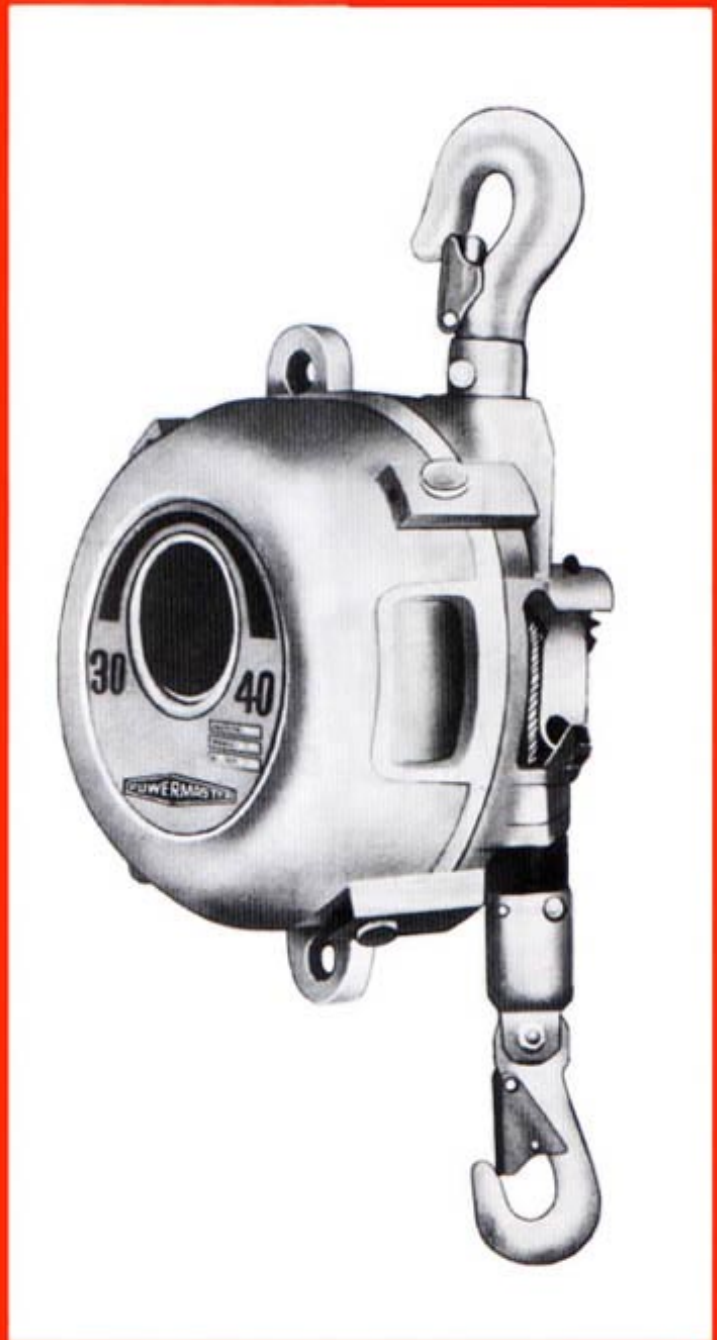


POWERMASTER

SPRING BALANCERS



RUGGED CONSTRUCTION

AUTOMATIC DRUM LOCK ARRANGEMENT

CONTAINERIZED MAIN SPRING

EXTERNAL TENSION ADJUSTMENT

SELF LUBRICATING BEARING

SWIVEL HOOK FOR ANY OPERATING ANGLE

QUICK CONNECTING AND DISCONNECTING OF LOAD

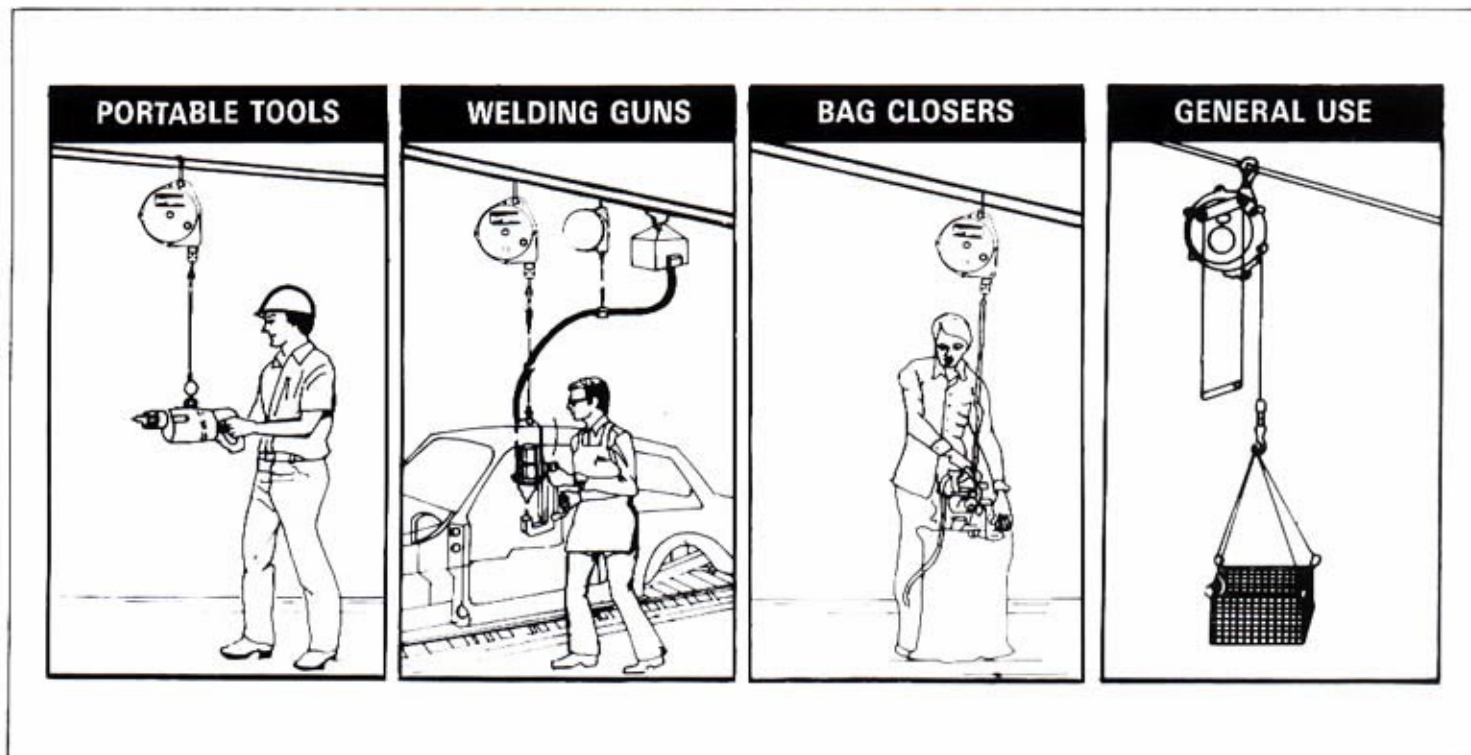
TO REDUCE OPERATOR FATIGUE AND TO INCREASE PRODUCTIVITY

APPLICATIONS, DESIGN AND ADVANTAGES

APPLICATIONS:

POWERMASTER Spring Balancer is a safe and completely reliable means of suspending following:

PORTABLE HAND TOOLS, WELDER GUNS, SPRAY GUNS, SHOT BLAST GUNS, DRIFTING ATTACHMENTS IN MINES AND QUARIES, JUTE AND SYNTHETIC BAG CLOSING MACHINES, GAUGES, JIGS AND FIXTURES, PENDANT STATION, SWITCH BUTTON OF HOISTS, INCASE OF DE-OXIDATION, WATER WASHING OF PLATING WORK WITH RAISING AND LOWERING OF WORK ETC.



DESIGN:

POWERMASTER Overhead Spring Balancers are specially designed to free the operator from weight of the hand tools.

When properly balanced by adjusting spring tension, the tools become almost weightless in the hands of the operator, and can be moved up and down with very little effort.

ADVANTAGES:

★ INCREASES PRODUCTIVITY:

Balancers keep tools poised for action, minimize motions required to bring tool from rest to work positions.

★ EXTENDS TOOL LIFE:

Balancers eliminate pick-up and laydown wear and prevent damage from dropping.

★ REDUCES OPERATOR FATIGUE:

A Balancer makes the heaviest tool light as a feather. Operator effort can be directed to controlling the tool rather than supporting.

★ NO NEED OF POWER:

There is no need of electrical or mechanical power.

★ INCREASES SAFETY:

Balancers keep work area uncluttered to reduce chances of damage of accessories or accidental start up of tools during handling.

★ EFFECTIVE USE OF SPACE:

The working place being widely utilized, and also to be cleaned up, the production is smoothly carried out.

SPRING BALANCER NORMAL TYPE SEW SERIES



POWERMASTER NEW SEW SERIES Spring Balancer specially designed to free the operator from weight of the hand tools. The tool can be pulled down with least pressure, without any strain or fatigue. Handling of the tool is very easy as the load and pressure required for operation is counter balanced in the mechanism of Spring Balancer itself. The operation is free of gravitational force.

RUGGED CONSTRUCTION Main housing and cover plate are manufactured from high tensile light weight Aluminium Alloy for maximum resistance against impact and ease of handling. Upper support hook assembly and Bottom suspension hook assemblies are manufactured of forged steel to provide maximum safety. Standard flexible wire rope is used for cables to provide good flexibility and fall safety.

TAPERED CABLE DRUM Unique cable drum design matches the middle turns of spring, where the optimum torque build-up is constant. This design features provides smooth, and even cable tension throughout the entire length of cable travel.

EXTERNAL TENSION ADJUSTMENT External tension adjustment is easily accessible from the floor. Tension can be set at exact requirement through a hardened worm from gear system. No Special tools needed.

SWIVEL ON TOP HOOK Allows 360 degree rotation. Positions the balancer for easiest cable flow. Prolongs cable life.

CONTAINERIZED MAIN SPRING Model SEW-22 to SEW-70 comes with completely containerized (cartridge type) main spring. This eliminates the need for maintenance personnel to handle loose dangerous springs. Spare springs are supplied encased in a container.

AUTOMATIC DRUM LOCK If spring tension declines sharply, an automatic locking mechanism immediately engages, preventing the load from falling.

MANUAL DRUM LOCK Suspended tools can be changed easily by engaging the manual drum lock. After tool or cable has been replaced - WITH FULL LOAD ATTACHED, manual drum lock can be released - DO NOT RELEASE MANUAL DRUM LOCK WITHOUT ATTACHING FULL LOAD. This can be done on the job site in a minutes, without removing tension on the balancer cable. This convenience makes change over safe, simple and quick reducing costly downtime.

SPECIFICATIONS

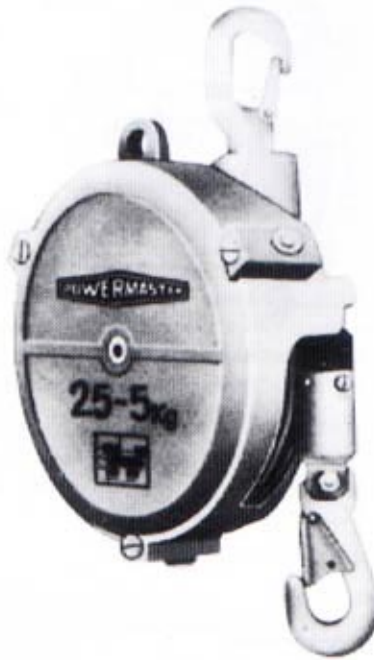
SPECIFICATIONS

MODEL NO.	BALANCING CAPACITY		TRAVEL IN MTR.	ROPE DIA. MM.	UNIT WEIGHT KGS.
	MIN. KGS.	MAX. KGS.			
SEW - 1	0.25	1.5	1.0	3.0	1.2
SEW - 2	1.0	2.0	1.0	3.0	1.2
SEW - 3	1.0	3.0	1.3	3.5	2.3
SEW - 5	2.5	5.0	1.3	3.5	2.5
SEW - 9	4.5	9.0	1.3	4.0	4.2
SEW - 15	9.0	15.0	1.3	4.0	4.5
SEW - 22	15.0	22.0	1.5	5.0	9.0
SEW - 30	22.0	30.0	1.5	5.0	9.0
SEW - 40	30.0	40.0	1.5	5.0	10.5
SEW - 50	40.0	50.0	1.5	5.0	11.2
SEW - 60	50.0	60.0	1.5	5.0	12.6
SEW - 70	60.0	70.0	1.5	5.0	13.2
SEW - 85	70.0	85.0	1.5	6.0	25.0
SEW - 100	85.0	100.0	1.5	6.0	27.5
SEW - 120	100.0	120.0	1.5	6.0	30.5

SPRING BALANCER TYPE SLR SERIES

SPRING BALANCERS SPECIAL TYPE SLR SERIES

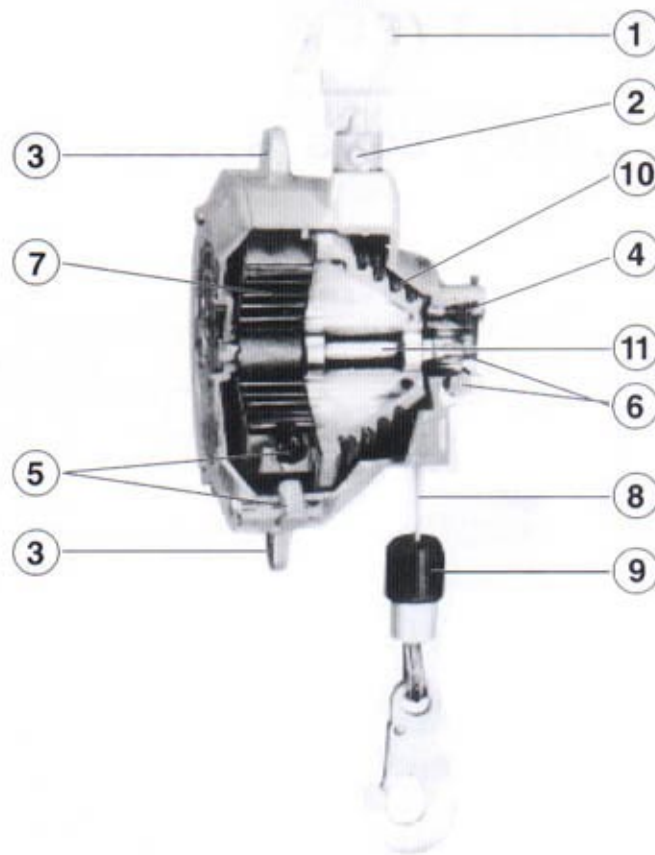
SLR SERIES - LONG STROKE TYPE



SLR Series Spring Balancers are similar to Standard SES Series except Cable Travel length is 2.5 mtrs. instead of 1.5 mtrs.

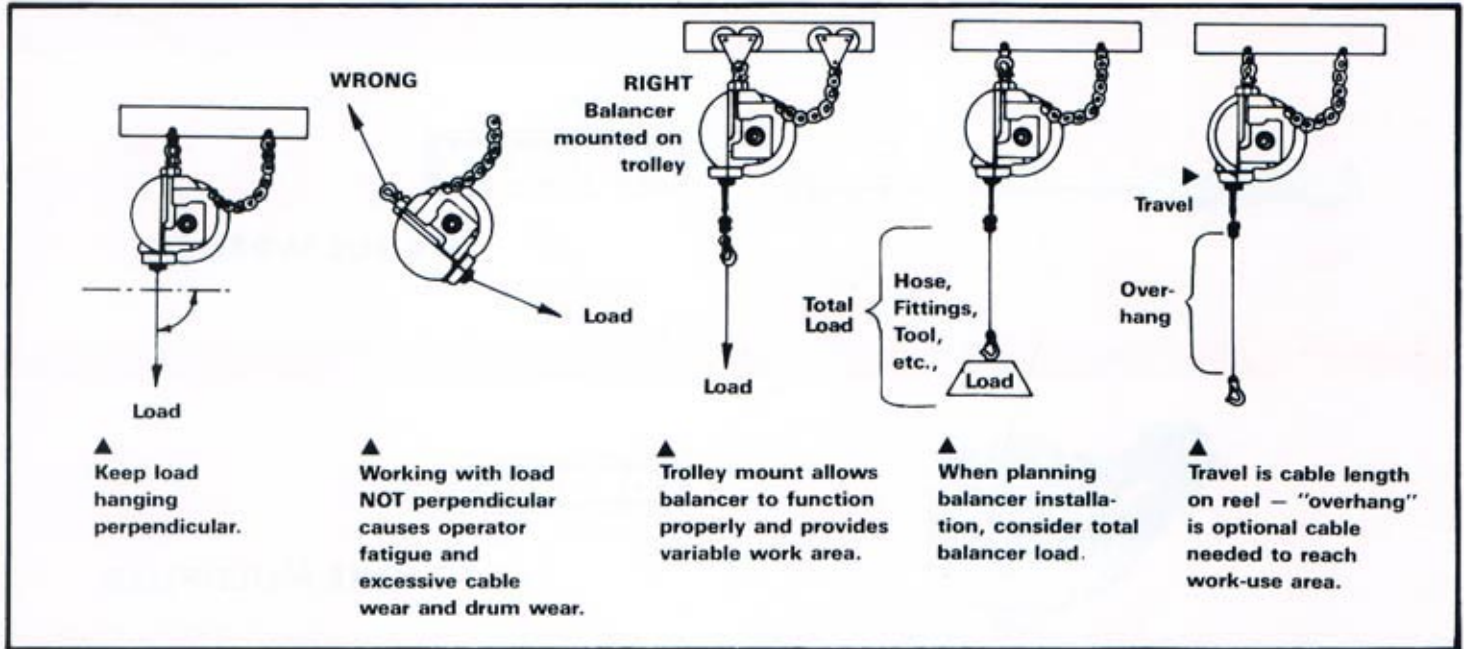
MODEL NO.	BALANCING CAPACITY		TRAVEL IN MTR.	ROPE DIA. MM.	UNIT WEIGHT KGS.
	MIN. KGS.	MAX. KGS.			
SLR-3	1.0	3.0	2.5	4	5.0
SLR-5	2.5	5.0	2.5	4	5.5
SLR-9	5.0	9.0	2.5	4	6.0
SLR-15	9.0	15.0	2.5	6	9.5
SLR-22	15.0	22.0	2.5	6	10.5
SLR-30	22.0	30.0	2.5	6	15.5
SLR-40	30.0	40.0	2.5	6	16.5
SLR-50	40.0	50.0	2.5	6	20.5
SLR-60	50.0	60.0	2.5	6	21.0
SLR-70	60.0	70.0	2.5	6	21.5

PARTS LIST



1. **Forged Hooks** - Top and bottom hooks have a safety latch to prevent accidental unhooking of either balancer from top hanger or suspended tool from the balancer.
2. **Swivel on Top Hook** - Allow full 360° rotation. Positions balancer for easiest cable flow. Prolongs cable life.
3. **Hanger for Secondary Support Chain** - Upper and lower Hanger are provided for attachment of secondary support chains to provide addition safety and to prevent possibility of Balancer and load falling accidentally.
4. **Manual Safety Lock** - Positively locks rotation of the drum. A must when replacing a cable, changing the load or renewing the spring.
5. **Safety Stop Arm** - Automatically locks the cable, drum and holds the load in place if the main spring fails.
6. **Hardened Worm and Worm Gear Load Adjustment** - Permits exact external balancing of load.
7. **Self-Contained Spring** - allows cable replacement without disassembly. Spring is retained in a steel collar.
8. **Stranded Steel Cable** - resist kinking reduces drum wear requires no lubrication outwears plain steel cable.
9. **Shock Absorber**
10. **Tapered Cable Drum** - Assures even tension in cable throughout working range.
11. **Steel Drum Shaft** - Precision made for extra life and added safety.

TIPS ON USE OF BALANCERS AND SECONDARY SUPPORT CHAINS



TOTAL LOAD — When selecting a balancer, first consideration should be given to the weight of the total load to be balanced (tool plus cable or hose plus other attachments). When the total weight has been determined, the balancer model with the proper tension (weight range) can be chosen. POWERMASTER series balancers have an external device for "on-the-job" tension adjustment. The adjustment range for each model is specified in the section tables.

BALANCER MOUNTING For maximum operator efficiency and balancer life, the tool balancer should always be mounted directly over the work area, with the perpendicular to the floor when in use. Working with the load not perpendicular causes operator fatigue and excessive wear on balancer cable and drum. When it is necessary to continually move the balancer and tool from one position to another, a system of trolleys and runways can be used.

CABLE TRAVEL — Cable travel is the total length of cable which can be installed on and pulled out of a balancer.

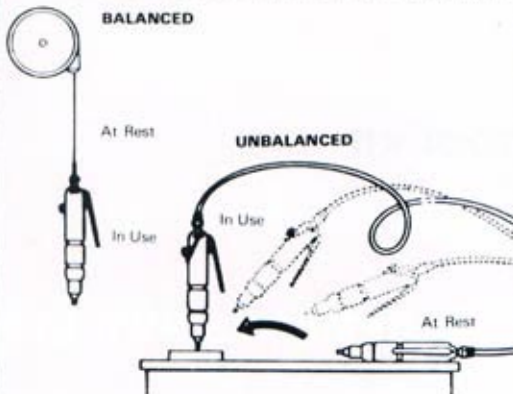
CABLE OVERHANG — Cable overhang is any additional length of cable attached to or part of the active cable, which is not retracted into the balancer. Overhang cable is often necessary for work area with high ceilings.

SECONDARY SUPPORT CHAIN — It is strongly recommended that all balancers mounted overhead have a secondary support chain attached, to prevent the possibility of the balancer accidentally falling. The chain attaches to the balancer with the other end attached to a support other than the one that supports the balancer. The length of the chain should be kept to an absolute minimum.

Spring Balancer

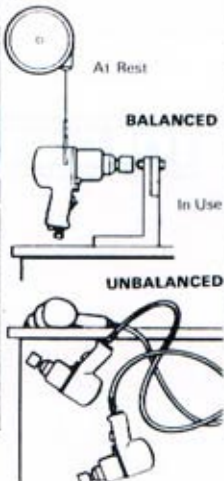
Whenever power tools are used, balancers can pay for themselves many times over. Here are just a few of the ways balancers can reduce total costs and increase production rates.

Increase Productivity — Balancers keep tools poised for action, minimize motions required to bring tool from rest to work positions.

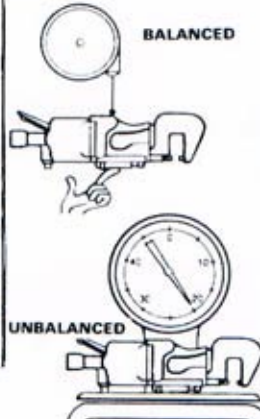


Extend Tool Life

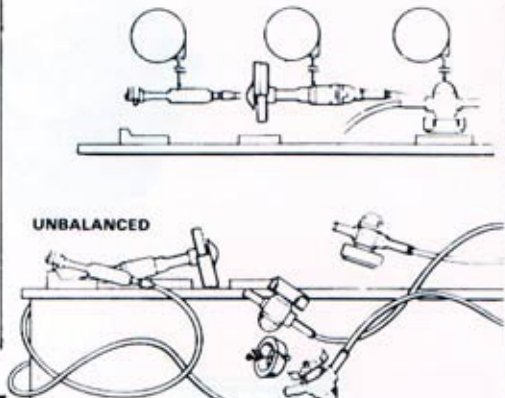
Balancers eliminate pick-up and lay-down wear, prevent damage from dropping. Housings last longer, spindles run truer when spared this abuse.



Reduce Operator Fatigue — A balancer makes the heaviest tool light as a feather. Operator effort can be directed to controlling the tool rather than supporting it.



Increase Safety — Balancers keep work area uncluttered, reduce chances of damage to accessories or accidental start-up of tools during handling.



QUALITY TORQUE TOOLS FROM POWERMASTER



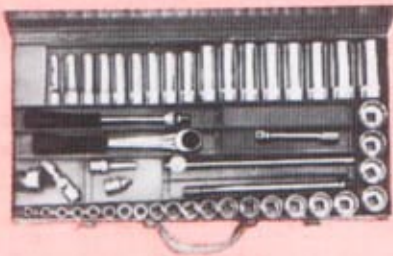
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TORQUE WRENCH



TORQPLUS

TORQUE MULTIPLIER



TORQTOOL

SOCKETS & ACCESSORIES



TORQSLEDGE

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TORQKIT

TOOL KIT

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