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Form No. 531976

Parts List &
Operating Instructions
for:

2010A



Original Instructions

Engine Stand

Maximum Capacity: 454 kg (1000 lbs.)

Weight: 24 kg (52 lbs.)



Description:

Engine stand designed to support and rotate an automotive engine during repair and service.

Conforms to
ASME-PALD

Explanation of Safety Signal Words

The safety signal word designates the degree or level of hazard seriousness.



DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



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



CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION: Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Sheet No. 1 of 4

Issue Date: Rev. B November 22, 2010

Safety Precautions



CAUTION: To prevent personal injury and/ or property damage,



- Study, understand, and follow all safety precautions and operating instructions before using this engine stand. If the operator cannot read instructions, operating instructions and safety precautions must be read and discussed in the operator's native language.

- Only qualified operators may install, operate, adjust, maintain, clean, repair, inspect, or transport this engine stand.



- Wear eye protection that meets ANSI Z87.1, CE EN166, AS/NZS 1337, and OSHA standards.

- Do not exceed the engine stand's rated capacity of 454 kg (1000 lbs.).

- Use this engine stand on a hard, level surface with the wheels and casters level.

- Lock the mounting plate rotating mechanism before applying a load.

- Tapped holes in engine blocks must be clean and not damaged to ensure full thread engagement. A thread length engagement equal to 1½ screw diameters—minimum—is required to maintain strength requirements.

- To maintain shear strength specifications, use Metric Property Class 8.8 or SAE Grade 5 cap screws to mount an engine. Mount the engine so weight is balanced within 51 mm (2.0 inches) of the engine stand's rotating axis.

- Ensure the load is centered and secured to mounting attachments. An off-center load may make the load and handle rotate in either direction when the rotational locking device is released. Release rotational locking devices **SLOWLY** and **CAREFULLY**.



- Stay out from underneath a load that is being lifted or suspended. Never work under an engine or any other component mounted to this engine stand.

- Move a loaded engine stand **SLOWLY** to avoid tipping.

- This engine stand is designed for automotive engines only. Using the engine stand in a manner for which it was not designed may result in personal injury or damage to the equipment.

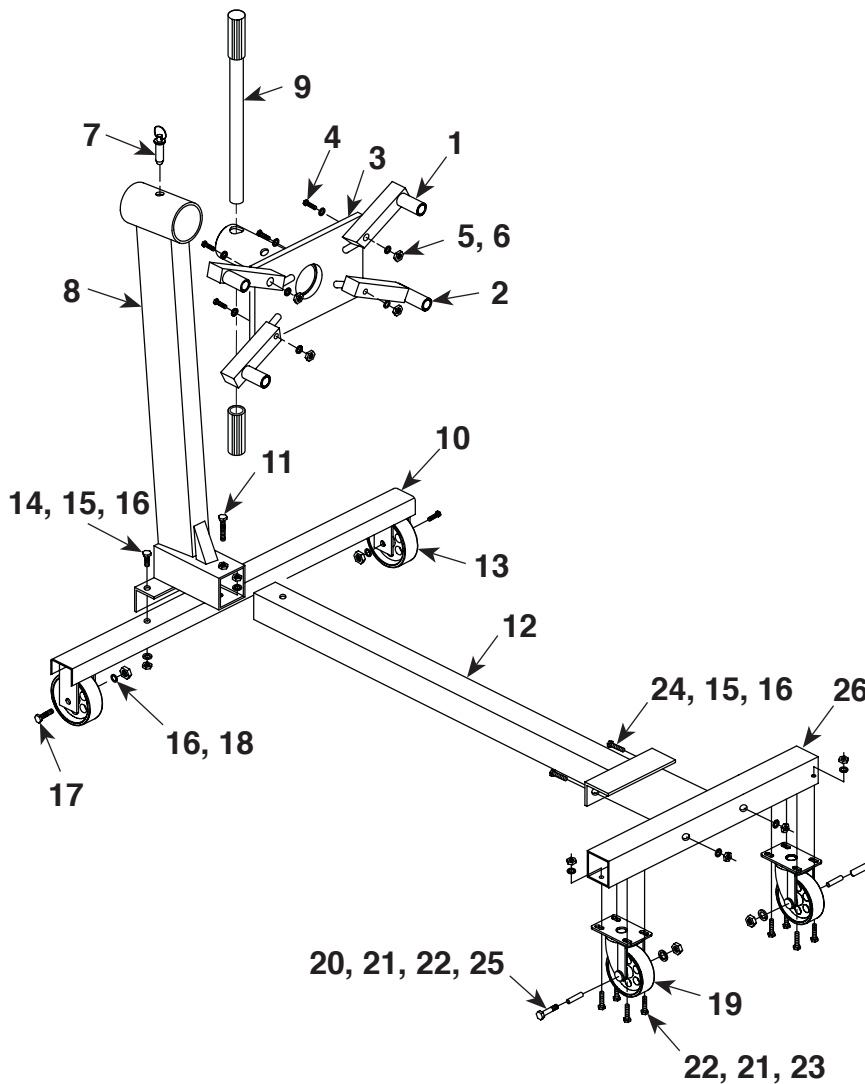
- Do not make alterations to this product.

- Use only those attachments and/or adapters supplied by the manufacturer.

- Inspect the condition of the engine stand before each use; do not use if damaged, altered, or in poor condition.

- Use only those repair parts called out in the parts list in this document. Items found in the parts list have been carefully tested and selected by SPX Service Solutions.

Parts List



Item No.	Description	Qty.
✕ 1	Mounting Arm	2
✕ 2	Mounting Arm	2
✕ 3	Mounting Plate	1
✕ * 4	Bolt	4
✕ * 5	Flat Washer	8
✕ * 6	Nut (M14)	4
✕ * 7	Pin	1
8	Main Post	1
▼ 9	Handle	1
10	Rear Beam	1
* 11	Bolt (M12 x 80)	1
12	Center Frame	1
□ 13	Wheel	2
* 14	Bolt (M12 x 25)	2
* 15	Washer	4
□ * 16	Nut (M12)	6
□ * 17	Bolt (M12 x 65)	2
□ * 18	Lockwasher	2
□ 19	Swivel Caster	2
□ * 20	Bolt (M8 x 50)	2
□ * 21	Lockwasher	18
□ * 22	Nut (M8)	8
□ * 23	Bolt (M8 x 16)	8
* 24	Bolt (M12 x 70)	2
□ * 25	Bushing	2
26	Front Beam	1

- ▼ Included in Handle Kit No. 532056
- * Included in Hardware Kit No. 532059
- ✕ Included in Mounting Arm Kit No. 532058
- Included in Wheel Kit No. 532057

Assembly Instructions

Item numbers refer to the parts list.

1. Attach the center frame (12) to the front beam (26) using bolts, washers, and nuts.
2. Install the main post (8) to the rear beam (10) using bolts, washers, and nuts.
3. Slide the center frame into the main post. Insert the bolt (11) through the hole in the main post, and thread into the center frame.
4. Install mounting plate (3) into the collar on top of the main post, and secure with a pin (7).
5. Attach four mounting arms (1, 2) to the mounting plate using bolts, washers, and nuts.
6. Slide the handle (9) through the hole at the rear of the mounting plate. Install rubber grips on both ends of handle.

Operating Instructions

Mounting the Engine to the Engine Stand

1. Determine the engine's center of gravity.
2. Remove the engine clutch bell housing.
3. Remove the mounting plate (with mounting arms loosely attached) from the engine stand. Fasten the four mounting arms to the engine. Do not tighten the cap screws.
4. Position the mounting plate axis of rotation as close as possible to the engine's center of gravity. Tighten the cap screws holding the brackets to the engine; tighten the cap screws holding the brackets to the mounting plate.
5. Attach an engine lifting bar or sling to the engine. Using a suitable lifting device, maneuver the engine toward the stand.
6. Insert the tubular end of the mounting plate into the stand. Install the pin and handle, and securely fasten the mounting hardware. Slowly and carefully remove the engine lifting device.

Rotating the Engine

1. Turn the handle (9) on the mounting plate tube to remove the load from the locking pin (7).
2. Pull out the locking pin.
3. Slowly and carefully use the handle to rotate the engine.
4. Once the engine is in position, align the outer tube hole with the inner tube hole, and replace the locking pin (7).

Removing the Engine from the Engine Stand

1. Attach an engine lifting bar or sling suspended from a suitable lifting device to the engine.
2. Carefully remove the handle and pin from the engine stand, and slowly pull the mounting plate out of the engine stand.
3. Maneuver the engine away from the engine stand, and unscrew the cap screws holding the mounting bracket to the engine.

Inspection and Maintenance



CAUTION: To prevent personal injury,

- Only qualified personnel shall perform inspections and repairs to this engine stand.
- Use only those repair parts called out in the parts list in this document. Items found in the parts list have been carefully tested and selected by SPX Service Solutions.

Inspection

Before each use, an approved inspector must inspect the engine stand for the following conditions:

- | | |
|----------------------------------|--|
| Cracked or damaged frame members | Excessive wear, bending, or other damage |
| Loose hardware | Malfunctioning swivel arms or locking pins |
| Modified or altered equipment | |

If any of these conditions are found, discontinue use of the engine stand until corrective action has been performed.

Maintenance

Periodically clean and lubricate the wheels, casters, and tubular end of the mounting plate. Use a low temperature grease.

Storage

Store the engine stand in a dry, well-protected area away from corrosive vapors, abrasive dust, or other harmful elements.

Repair

When repairing the engine stand, use only those repair parts called out in the parts list in this document. Items found in the parts list have been carefully tested and selected by SPX Service Solutions.

Disposal

At the end of the useful life of the engine stand, dispose of the engine stand according to all state, federal, and local regulations.

PRODUCT INFORMATION

Record serial number and year of manufacture for future reference. See product identification label on unit for information.

2010A
Serial Number: _____ Year of Manufacture: _____

English

Original Instructions

We SPX Service Solutions
of 655 Eisenhower Drive
Owatonna, Minnesota 55060-995 USA

in accordance with the following Directive(s):
2006/42/EC The Machinery Directive

hereby declare that:


Equipment Engine stand
Model Number 2010A

is in conformity with the applicable requirements of the following documents:

Ref. No.	Title	Edition / Date
N/A	N/A	N/A

EC Declaration of Conformity

I hereby declare that the equipment named here has been designed to comply with the relevant sections of the above referenced specifications and is in accordance with the requirements of the Directive(s).

Signed by: 
Name: Michael Schoenoff
Position: Supervisor, Mechanical Engineering
Location: Owatonna, Minnesota
Date: 12/28/2010

The technical documentation for the machinery is available from
Name: SPX Service Solutions Germany GmbH
Address: Am Dörrenhof 1
85131 Pollenfeld / Preith, Germany
represented by Gary Palmer, Geschäftsführer

Español

Instrucciones originales

Nosotros SPX Service Solutions
de 655 Eisenhower Drive
Owatonna, Minnesota 55060-995 USA

de acuerdo con la(s) siguiente(s) Directiva(s):
2006/42/EC La directiva de la maquinaria

por la presente declaro que:


Equipo Soporte de motor
Número de modelo 2010A

está en conformidad con los requerimientos aplicables de los siguientes documentos:

No. de Ref.	Título	Edición / Fecha
N/A	N/A	N/A

Declaración de conformidad con EC

Declaro por la presente que el equipamiento nombrado aquí ha sido diseñado para cumplir con las secciones relevantes de las especificaciones anteriormente indicadas y está de acuerdo con los requisitos de la(s) Directiva(s).

Firmado por: 
Nombre: Michael Schoenoff
Puesto: Supervisor, Ingeniero mecánico
Ubicación: Owatonna, Minnesota
Fecha: 12/28/2010

La documentación técnica para la maquinaria está disponible en
Nombre: SPX Service Solutions Germany GmbH
Dirección: Am Dörrenhof 1
85131 Pollenfeld / Preith, Alemania
representado por Gary Palmer, Geschäftsführer

Français

Consignes d'origine

Nous, SPX Service Solutions
résidant à 655 Eisenhower Drive
Owatonna, Minnesota 55060-995, États-Unis

selon la ou les directives suivantes :
2006/42/CE Directive relative aux machines

déclarons par la présente que :


Équipement Support de moteur
Numéro de modèle 2010A

est conforme aux exigences applicables des documents suivants :

N° de référence	Titre	Édition/Date
S/O	S/O	S/O

Déclaration de conformité européenne

Je déclare par la présente que l'équipement désigné ici a été conçu conformément aux sections appropriées des stipulations susmentionnées et respecte les exigences de la ou des directives.

Signé par : 
Nom : Michael Schoenoff
Fonction : Superviseur, génie mécanique
Lieu : Owatonna, Minnesota
Date : 12/28/2010

La documentation technique de la machinerie est disponible auprès de
Nom : SPX Service Solutions Germany GmbH
Adresse : Am Dörrenhof 1
85131 Pollenfeld / Preith, Allemagne
représenté par Gary Palmer, Geschäftsführer

Deutsch

Original-Betriebsanleitung

Wir SPX Service Solutions
von 655 Eisenhower Drive
Owatonna, Minnesota 55060-995 USA

erklären hiermit in Übereinstimmung mit der/den folgenden Richtlinie(n):
2006/42/EG Maschinenrichtlinie

dass:


Gerät Motorständer
Modellnummer 2010A

die geltenden Anforderungen der folgenden Dokumente erfüllt:

Ref. Nr.	Titel	Ausgabe / Datum
entfällt	entfällt	entfällt

EU-Konformitätserklärung

Ich erkläre hiermit, dass das hier benannte Gerät den relevanten Abschnitten der vorstehend benannten Spezifikationen entspricht und die Anforderungen der Richtlinie(n) erfüllt.

Unterschrift: 
Name: Michael Schoenoff
Stellung: Supervisor, Mechanical Engineering
Standort: Owatonna, Minnesota
Datum: 12/28/2010

Die technische Dokumentation der Maschine ist erhältlich von
Name: SPX Service Solutions Germany GmbH
Anschrift: Am Dörrenhof 1
85131 Pollenfeld / Preith, Deutschland
vertreten von Gary Palmer, Geschäftsführer

L'azienda SPX Service Solutions
con sede a 655 Eisenhower Drive
Owatonna, Minnesota 55060-995 USA

in conformità alle seguenti direttive:
2006/42/CE Direttiva Macchine


dichiara che:

La macchina Cavalletto per motori
Modello 2010A

risponde ai pertinenti requisiti dei seguenti documenti:

N. rif.	Titolo	Edizione / Data
Non pert.	Non pert.	Non pert.

Si dichiara che la macchina descritta in questo documento è stata progettata in conformità alle pertinenti sezioni delle specifiche a cui si fa riferimento sopra e risponde ai requisiti delle direttive.

Firma: 
Nome: Michael Schoenoff
Qualifica: Direttore ingegnerizzazione meccanica
Sede: Owatonna, Minnesota
Data: 12/28/2010

Il fascicolo tecnico della macchina è disponibile presso:
Nome: SPX Service Solutions Germany GmbH
Indirizzo: Am Dörrenhof 1
85131 Pollenfeld / Preith, Germania
Mandatario: Gary Palmer, Geschäftsführer