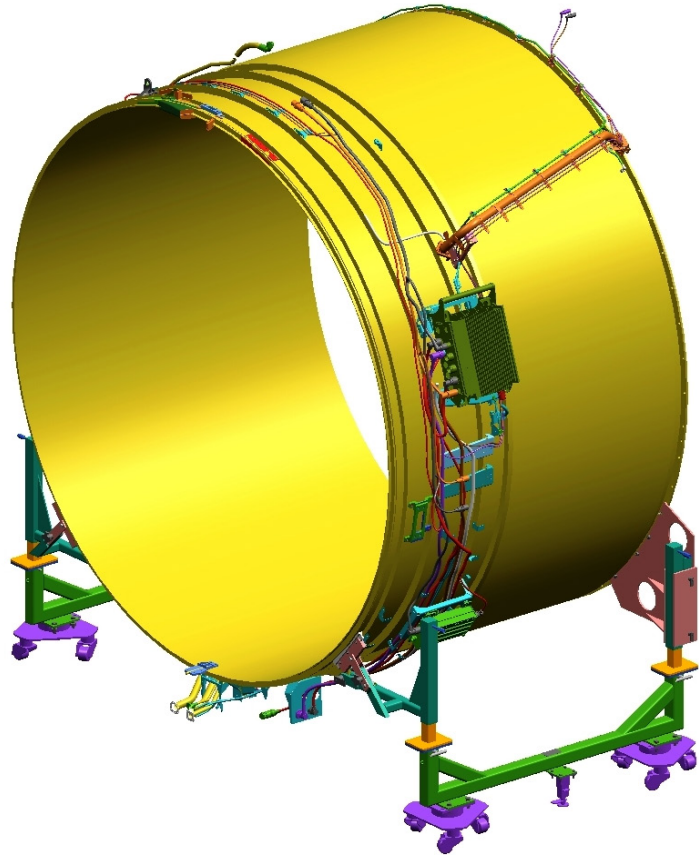


OPERATION AND MAINTENANCE MANUAL

FAN INSTALLATION & REMOVAL DOLLY

FOR GP7200 ENGINE

P/N PWA105743



Document Control Number PWA105743

Revision Date December 21, 2023

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Operation and Maintenance Manual

GP7200 FAN INSTALLATION AND REMOVAL DOLLY

RECORD OF REVISIONS

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N/A	00	SEPTEMBER 22, 2008	J. HENDERSON
N/A	01	MARCH 17, 2006	J. HENDERSON
N/A	02	SEPTEMBER 29, 2008 J	J. HENDERSON
N/A	03	AUGUST 6, 2009	J. HENDERSON
N/A	A	DECEMBER 21, 2023	G. CUEVAS

HIGHLIGHTS OF REVISIONS

- Revision 00: Initial Release
- Revision 01: Updated to reflect latest configuration
- Revision 02: Updated to reflect latest configuration
- Revision 03: Updated to reflect latest configuration. Added caution note, page
- Revision A Updated manual layout. Updated Item 52, 53, & 65 Part Number

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GP7200 FAN INSTALLATION AND REMOVAL DOLLY

Section 1 - DESCRIPTION

This manual provides operational and maintenance instructions and parts lists for the GP7200 Fan Installation and Removal Dolly, part number PWA105743.

The Fan I & R Dolly is designed to separate the GP7200 fan case assembly from the propulsor assembly (while the engine is installed in part number PWA106390, the Propulsor/Full Engine Stand), and to install the fan case assembly onto part number PWA105742, the Fan Case Rotation and Shipping Fixture.

For additional information on this or other aviation ground support applications, we invite you to contact one of our Customer Service Representatives, or visit our website.

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Section 2 - SAFETY CONSIDERATIONS

- This equipment is heavy and has moving parts. Whenever such a combination exists, there is the potential for serious injury. Work carefully at all times.
- Be alert and pay attention when using this equipment. Careless use, or a casual attitude during operation, may lead to an accident.
- Keep your feet clear of the dolly during any operation that involves motion.
- Keep your hands clear of the pinch points on the dolly.
- Pay attention to the warnings that are stenciled on the dolly (such as minimum or maximum torque values, psi limits, tie down requirements, etc.). They are there for your safety. Do not ignore or violate them.

CAUTION

This system is NOT equipped with caster brakes, and should only be used on a smooth, level surface. If the loaded equipment is to be left unattended, the caster wheels should be blocked to prevent rolling.

CAUTION

This dolly is intended for manual movement, and should not be moved with a tow vehicle.

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Section 3 - OPERATION

A. OPERATIONAL DESCRIPTION

The following sections provide instructions on how to prepare the I & R Dolly to mount to the fan case, how to remove the fan case from the propulsor, and how to reinstall the fan case to the propulsor. Transferring the fan case from the I & R Dolly to the Fan Rotation/Shipping Fixture is covered in a separate manual.

B. ATTACHING THE FAN CASE TO THE DOLLY:

Fan Case Removal (the following instructions apply to both halves of the I & R Dolly)

1. Prepare the engine for disassembly per instructions supplied by the engine manufacturer.
2. The forward casters on the stand may need to be rotated in order for the I&R Dollies to clear them when the fan case is being removed. The steering bars on the stand may be used to rotate the casters.
3. If necessary, rotate the forward and aft jacks from their storage position to the deployed position, making sure to note correct inboard direction.
3. Remove the A-flange weldment from the forward jack by unpinning the two ball-lock pins.
4. Attach the A-flange weldment to the aft face of the engine A-flange by inserting the dowel pin into the appropriate hole, and installing the nuts and bolts in the remaining three holes. Install the shoulder bolts from the AFT of the A-flange plate, and install the nylon flatwasher, stainless flatwasher, and hex nut from the FORWARD face of the A-flange. The correct installation position can be determined by making sure the three bolt holes line up with their corresponding A-flange holes once the dowel pin is in place.

CAUTION

WHEN BOLTING TO THE A-FLANGE, ENSURE THAT THE NYLON FLATWASHER (FIGS. 3 & 4, ITEM 68) IS IN CONTACT WITH THE FORWARD FACE OF THE A-FLANGE. THE STAINLESS FLATWASHER (FIGS. 3 & 4, ITEM 67) MAY CAUSE DAMAGE TO THE SURFACE OF THE A-FLANGE

5. With both the forward and aft jacks in their lowest position, roll the frame close to the engine and align it left-to-right with the A-flange weldment that was installed in step 5.
6. Roll the frame forward until the forward jack engages with the A-flange weldment.
7. Raise the aft jack until the fan exit case lug engages its mating slot, then install the ball lock pin. Loosen the hand knob on the aft support pad, and slide it up and in until it is seated on the surface just forward of the V-groove. Retighten the hand knob.
8. Raise the forward jack until the two ball-lock pins removed in step 4 can be reinstalled.
9. Raise all four jacks as needed to transfer the fan case load from the propulsor to the I & R Dolly.
10. Once all of the engine connections have been removed, slowly roll the fan case forward until it is clear of the propulsor.

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GP7200 FAN INSTALLATION AND REMOVAL DOLLY

Section 3 - OPERATION (cont'd)

Fan Case Installation:

1. Prepare the fan case for assembly to the propulsor per instructions supplied by the engine manufacturer.
2. Position the loaded I & R Dolly in front of the propulsor, roughly aligned with the engine centerline.
3. Raise all four jacks until the centerline of the fan case is aligned vertically with the propulsor centerline.
4. Slowly roll the I & R Dolly towards the propulsor, making any height adjustments as needed to ensure the proper alignment of the engine assembly guide pins (P&W P/N PWA105714, Aligning Pin).
5. Once the proper alignment is achieved, mate the fan case to the propulsor, and assemble any bolts as required by the engine manufacturer's instructions.
6. When the fan case is secured to the propulsor, lower all four jacks slightly so that the load of the fan case is transferred to the propulsor/stand assembly.
7. Disengage the two ball lock pins securing the A-flange weldments to the left and right hand dollies.
8. Disengage the aft support pad by loosening the hand knob and pulling the pad downward.
9. Disengage the ball lock pins on the aft fan case handling lugs.
10. Lower the aft jacks until the aft handling arm is clear of the aft fan case lugs.
11. Roll the fan dolly aft until the forward jack disengages from the A-flange weldment.
12. Unbolt the A-flange weldments from the aft face of the A-flange, and reassemble them to the forward jacks.

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Section 4 - SHIPPING

The I & R Dolly may be shipped by any preferred method without special preparation. For normal shipment, the dolly should be blocked and strapped to a shipping buck or pallet.

Section 5 - STORAGE

The I & R Dolly requires no special storage treatment, as it has been suitably protected from normal environmental deterioration. For long-term storage, the unit should be stored in a humidity controlled environment.

Section 6 - INSPECTION

To ensure efficient and reliable operation, the dolly must be maintained through regular preventative maintenance practices. These practices include inspection, cleaning, and lubrication. All preventive maintenance should be performed regularly, at least once every six months. The manufacturer recommends more frequent maintenance in conditions of heavy service or extreme weather. Replace any parts that do not meet inspection standards and that cannot be repaired in the field.

1. Clean entire dolly with a mild detergent solution, followed by a clear water rinse. Dry all parts using a clean cloth or low pressure compressed air.
2. Inspect all dolly parts for signs of wear or damage.
3. Inspect all structural members for distortion, breaks, cracks, or other signs of damage.
4. Inspect load-bearing surfaces and the threads of all bolts for small cuts, scoring, distortion, elongation, or other signs of wear or damage.
5. Inspect all bolted parts for looseness and tighten as necessary.
6. Inspect the paint for wear or discontinuities, and repair as required.

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Section 7 - MINOR REPAIRS

1. Replace any parts that do not meet inspection requirements and can not be repaired in the field.
2. Minor corrosion and other surface blemishes may be removed using crocus cloth and phosphate ester resistant paint. Unpainted parts may be protected with a thin coating of light oil.
3. Grease caster wheel bearings and caster pivots.

Do not paint rubber, plated surfaces, or engine attaching hardware.

Section 8 - MAJOR REPAIRS

Major repair is not possible in the field. The dolly must be returned to the manufacturer for overhaul, proof load testing and recertification following any major damage.

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Section 8 - ILLUSTRATED PARTS LIST

8.1 How to use this Parts List

Turn to the Assembly Figure and identify the part by location and appearance. Note the Item Number assigned to the illustrated part. Locate the Item Number in the appropriate parts list. The line entry for that Item Number provides the, Part Number, Description, and Quantity required Per Assembly.

8.2 Units Per Assembly

Quantities specified in the Units Per Assembly column are the total number of each part required for the indicated assembly, if the part is included in a higher-level assembly. The total quantity required is a product of the quantities indicated at each level, up to the Top Assembly.

8.3 How to order Replacement Parts

Replacement parts and/or spare parts listed in this manual may be ordered by specifying the Top Assembly Part Number, the Subassembly Part Number (if any), the Item Number, Description, and the Quantity Required.

Example:

**TOP ASSEMBLY P/N 287000-1 TOWBAR ASSEMBLY
SUBASSEMBLY ITEM 2, P/N 400000-1 ADAPTER KIT**

Item Number	Part Number	Description	Quantity Req'd/ Units Per Assembly
17	101715-75	Flatwasher, Ø.75	2

In the above example, there are two washers per adapter kit, and one adapter kit per towbar, so to replace all washers on the adapter kit bolt, a quantity of 2 is specified.

Replacement and/or spare parts may be ordered from:

STANLEY AVIATION CORPORATION

10805 Painter Ave.

Santa Fe Springs, California 90670, USA

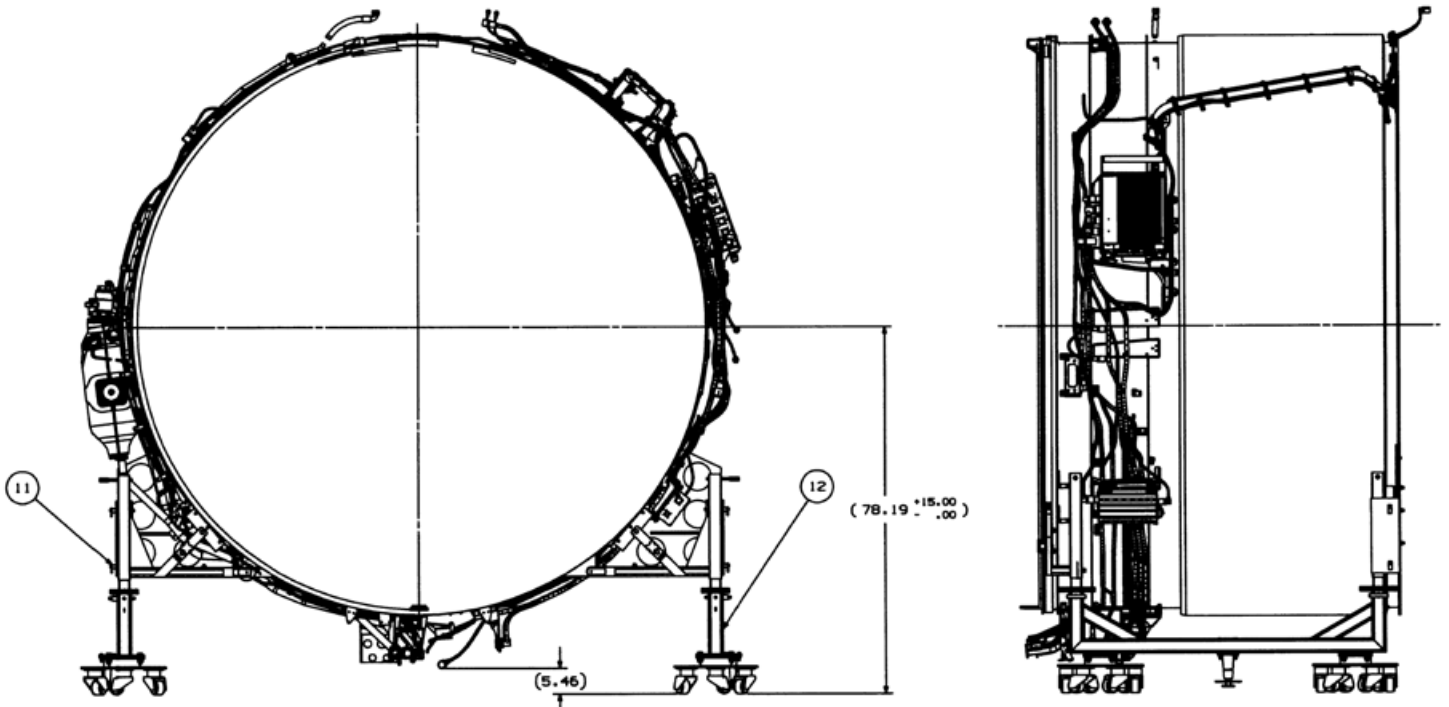
Tel: 1.562.906.9300

Fax: 1.562.906.9308 agse@agsecorp.com

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GP7200 FAN INSTALLATION AND REMOVAL DOLLY

Section 8 - ILLUSTRATED PARTS LIST (cont'd)



QTY REQD	ITEM NO	PART NO.	DESCRIPTION
X	-	PWA105743	GP7200 FAN INST. & REMOVAL DOLLY
1	11	372401-1	GP7200 FAN INST. & REMOVAL DOLLY, LEFT
1	12	372402-1	GP7200 FAN INST. & REMOVAL DOLLY, RIGHT

FIGURE 1
PWA105743

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GP7200 FAN INSTALLATION AND REMOVAL DOLLY

Section 8 - ILLUSTRATED PARTS LIST (cont'd)

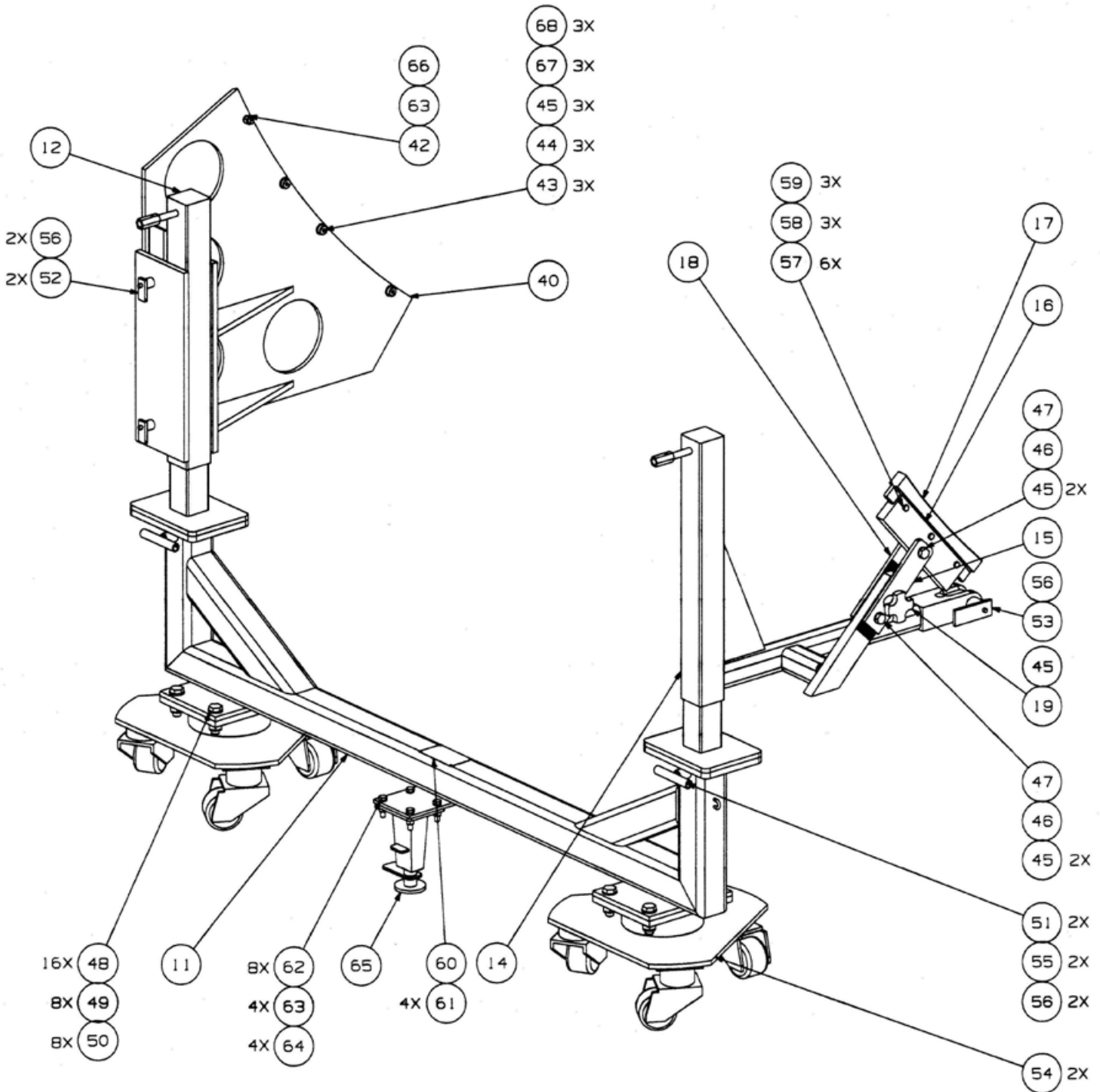


FIGURE 2 - 372401-1 DOLLY, LEFT

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
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GP7200 FAN INSTALLATION AND REMOVAL DOLLY

Section 8 - ILLUSTRATED PARTS LIST (cont'd)

QTY REQD	ITEM NO	PART NO.	DESCRIPTION
X	-	372401-1	FAN INST. & REMOVAL DOLLY, LEFT
1	11	372411-1	FAN INST. & REMOVAL DOLLY WELDMENT
1	12	372412-1	JACK WELDMENT, LH
1	14	372414-1	AFT JACK WELDMENT
1	15	372449-1	ADJUSTMENT BAR, AFT
1	16	372450-1	V-GROOVE PLATE
1	17	372451-1	AFT SUPPORT PAD
1	18	372453-1	ADJUSTMENT BAR, FORWARD
1	19	6085K17	HAND KNOB, .50-13UNC X 1.75L
1	40	372440-1	A-FLANGE WELDMENT, LH
1	42	101715-38C	FLATWASHER, Ø.38
3	43	372501-1	SHOULDER SCREW, ALTERED
3	44	102963-38C	HEX NUT, .38-16UNC
8	45	101715-50	FLATWASHER, Ø.50
2	46	101875-50	HEX NUT, .50-13UNC
2	47	102475-250	BOLT, HEX HEAD, GR5, .50-13UNC X 2.50L
16	48	101715-62	FLATWASHER, Ø.62
8	49	102477-200	BOLT, HEX HEAD, GR5, .62-11UNC X 2.00L
8	50	101875-62	LOCK NUT, .62-11UNC
2	51	110120-08-3.00	T-HANDLE PIN, Ø.50 X 3.00L
2	52	AGSE-S00206-P03	BALL LOCK PIN
1	53	AGSE-S00206-P04	BALL LOCK PIN
2	54	R2400-T	3-WAY SWIVEL CASTER
2	55	102892-1	PIN, SAFETY
5	56	101809-09	LANYARD ASSEMBLY
6	57	101715-25	FLATWASHER, Ø.25

FIGURE 3 - 372401-1 DOLLY, LEFT BOM

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Section 8 - ILLUSTRATED PARTS LIST (cont'd)

3	58	102511-150	BOLT, HEX HEAD, GR8, .25-20UNC X 1.50L
3	59	101875-25	LOCKNUT, .25-20UNC
1	60	102001-1	NAMEPLATE
4	61	102489-2	DRIVE SCREW, U-TYPE
8	62	101715-38	FLATWASHER, Ø.38
5	63	101875-38	LOCK NUT, .38-16UNC
4	64	102473-150	BOLT, HEX HEAD, GR5, .38-16UNC X 1.50L
1	65	AGSE-S00182-P01	FLOOR LOCK, FOOT-OPERATED
1	66	372420-1	MOUNT PIN
3	67	98370A019	FLATWASHER, STAINLESS, Ø.38
3	68	90295A170	FLATWASHER, NYLON, Ø.38

FIGURE 3 - 372401-1 DOLLY, LEFT BOM (cont'd)

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Section 8 - ILLUSTRATED PARTS LIST (cont'd)

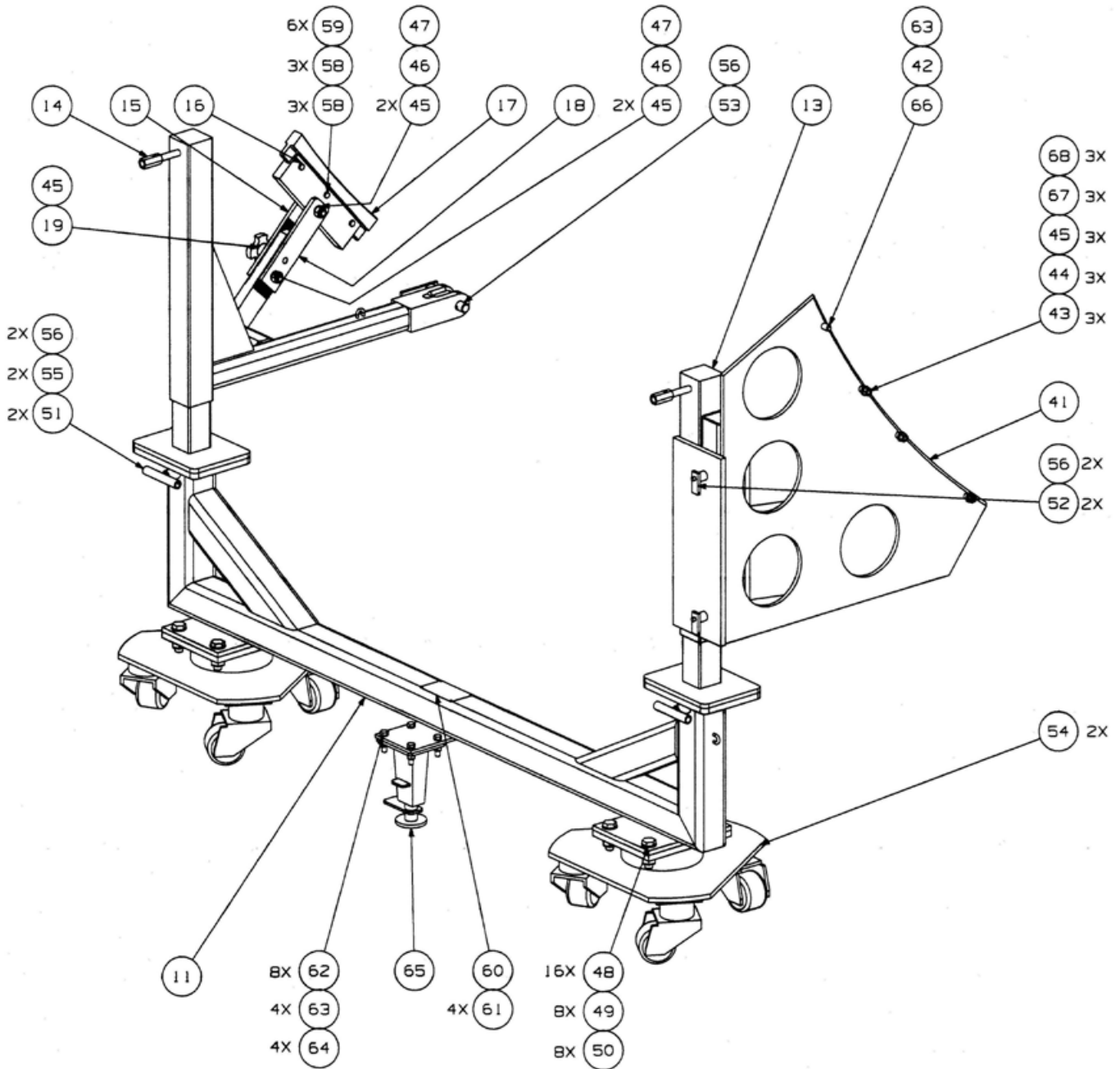


FIGURE 4 - 372402-1 DOLLY, RIGHT

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
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GP7200 FAN INSTALLATION AND REMOVAL DOLLY

Section 8 - ILLUSTRATED PARTS LIST (cont'd)

QTY REQD	ITEM NO	PART NO.	DESCRIPTION
X	-	372402-1	FAN INST. & REMOVAL DOLLY, RIGHT
1	11	372411-1	FAN INST. & REMOVAL DOLLY WELDMENT
1	13	372413-1	JACK WELDMENT, RH
1	14	372414-2	AFT JACK WELDMENT
1	15	372449-1	ADJUSTMENT BAR, AFT
1	16	372450-1	V-GROOVE PLATE
1	17	372451-1	AFT SUPPORT PAD
1	18	372453-1	ADJUSTMENT BAR, FORWARD
1	19	6085K17	HAND KNOB, .50-13UNC X 1.75L
1	41	372441-1	A-FLANGE WELDMENT, RH
1	42	101715-38C	FLATWASHER, Ø.38
3	43	372501-1	SHOULDER SCREW, ALTERED
3	44	102963-38C	HEX NUT, .38-16UNC
8	45	101715-50	FLATWASHER, Ø.50
2	46	101875-50	LOCK NUT, .50-13UNC
2	47	102475-250	BOLT, HEX HEAD, GR5, .50-13UNC X 2.50L
16	48	101715-62	FLATWASHER, Ø.62
8	49	102477-200	BOLT, HEX HEAD, GR5, .62-11UNC X 2.00L
8	50	101875-62	LOCK NUT, .62-11UNC
2	51	110120-08-3.00	T-HANDLE PIN, Ø.50 X 3.00L
2	52	AGSE-S00206-P03	BALL LOCK PIN
1	53	AGSE-S00206-P04	BALL LOCK PIN
2	54	R2400-T	3-WAY SWIVEL CASTER
2	55	102892-1	PIN, SAFETY
5	56	101809-09	LANYARD ASSEMBLY
6	57	101715-25	FLATWASHER, Ø.25

FIGURE 5—372402-1 DOLLY, RIGHT BOM

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Section 8 - ILLUSTRATED PARTS LIST (cont'd)

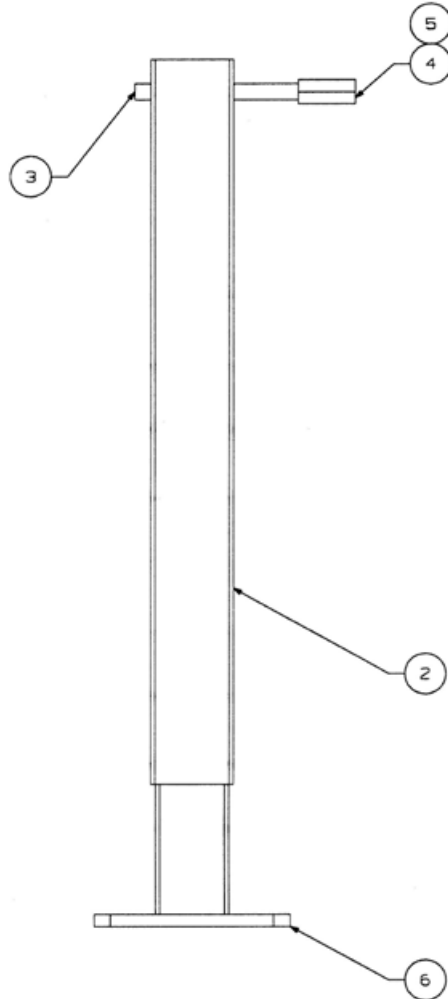
3	58	102511-150	BOLT, HEX HEAD, GR8, .25-20UNC X 1.50L
3	59	101875-25	LOCKNUT, .25-20UNC
1	60	102001-1	NAMEPLATE
4	61	102489-2	DRIVE SCREW, U-TYPE
8	62	101715-38	FLATWASHER, Ø.38
5	63	101875-38	LOCK NUT, .38-16UNC
4	64	102473-150	BOLT, HEX HEAD, GR5, .38-16UNC X 1.50L
1	65	AGSE-S00182-P01	FLOOR LOCK, FOOT-OPERATED
1	66	372420-1	MOUNT PIN
3	67	98370A019	FLATWASHER, STAINLESS, Ø.38
3	68	90295A170	FLATWASHER, NYLON, Ø.38

FIGURE 5—372402-1 DOLLY, RIGHT BOM (cont'd)

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GP7200 FAN INSTALLATION AND REMOVAL DOLLY

Section 8 - ILLUSTRATED PARTS LIST (cont'd)



QTY REQD	ITEM NO	PART NO.	DESCRIPTION
X	-	372445-1	JACK, ALTERED
1	2	190752	JACK
1	3	372446-1	JACK HANDLE
1	4	372447-1	ADAPTER, JACK HANDLE
1	5	100059-22	ROLL PIN, Ø.19 X .75L
1	6	372454-1	JACK PLATE

**FIGURE 6—372445-1 ALTERED JACK
(USED IN 372413-1 & 372414-1/-2)**