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AGSE-E058-G02

Light Weight Breakdown Stand

For CFM56-7 Engines Used On B737-600/700/800/900 Aircraft

ADVANCED GROUND SYSTEMS ENGINEERING LLC

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Notice

1. Alteration, Modification, Reengineering, or Reproduction of Equipment

The alteration, modification, reengineering, or reproduction of AGSE equipment and/or parts is not permitted without prior written authorization from AGSE.

These modifications include but are not limited to:

- Structural changes to AGSE-supplied parts
- Substitution of AGSE-supplied parts, including hardware, with an alternate source or supplier
- Reverse engineering of AGSE equipment and parts.

Requests for modifications should be submitted to AGSE for review – please send modification requests to **support@agsecorp.com**.

Once reviewed by our Engineering team, a Customer Support Letter (Subject: No Technical Objection) will be issued for any approved modifications.

NOTE

Modifications executed without prior authorization by AGSE may result in a non-compliant product that is unsafe for operation.

Unauthorized modifications void AGSE's and the OEM's (Engine and/ or Airframer) approval and authority to use the product for its intended application.

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1.0 - Revisions

The following is an itemized record of all changes from previous revision.

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PAGE	REV	DESCRIPTION OF CHANGE	DATE
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A	В	Added Notice	12/6/2023

2.0 - Illustration

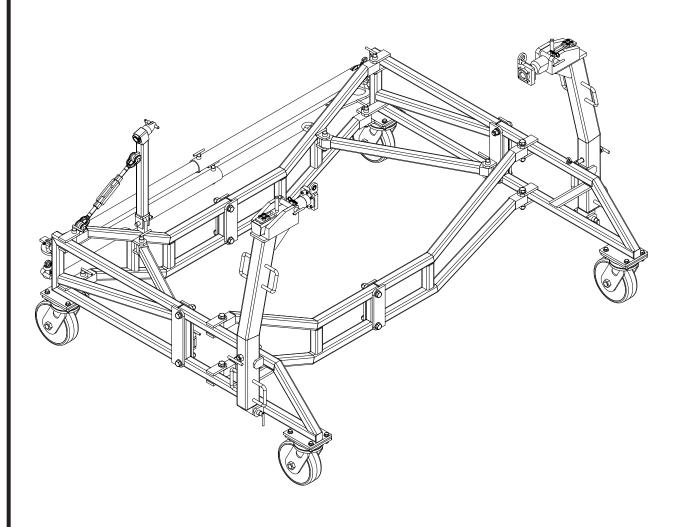


Figure 2.0-1 - AGSE-E058-G02 - Light Weight Breakdown Stand

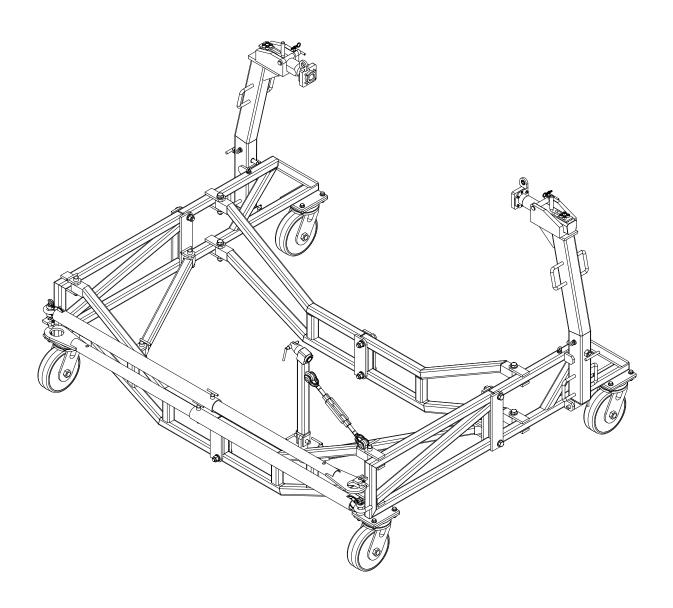


Figure 2.0-2 - AGSE-E058-G02 - Light Weight Breakdown Stand

3.0 - Specification

3.1 General

The AGSE-E058-G02 Light Weight Breakdown Stand is designed to support the CFM International (CFMI) CFM56-7 engine in full QEC configuration. The stand is compliant with applicable CFMI Specifications as they relate to engine interface and strength. The stand is designed for site transportation only, not air or truck shipment.

The stand un-pins and folds to minimize empty shipping volume and can be shipped in the lower cargo compartments of B737 and wide body aircraft.

3.2 Mobility

Four caster assemblies support the stand. Each caster assembly offers a 3.0 inch wide by 10.0 inch diameter wheel for easy mobility and a weight capacity of 2,520 pounds each. Polyurethane tread wheels, swivel locks, and brakes are standard. The stand is towable from the aft end only with a two piece, telescoping towbar. Maximum towing speed for entire stand (with engine) is 5 Km/h (3 MPH).

CAUTION

Failure to unlock the lead casters (towbar end) during towing of the stand will result in flat spots being worn into the caster tread.

3.3 Design

The AGSE-E058-G02 Stand consists of a pinned and bolted assembly of welded steel frame components with removable engine ground handling mounts compatible with the CFM56-7 Engine. Tubular arms support the engine handling mounts.

3.4 Fabrication and Finish

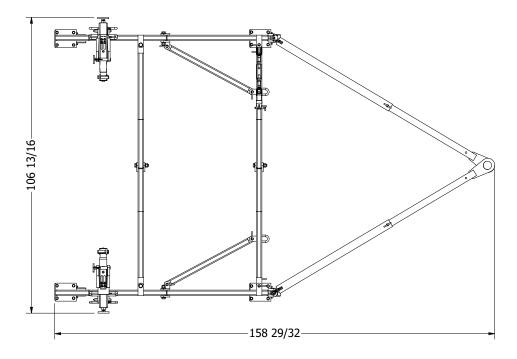
The stand is fabricated from structural steel shapes conforming to ASTM A500, A513, and A36 materials. All bolted connections use A325 structural bolts or SAE Grade 5 commercial hardware. Unit is primed and painted with high-grade, Skydrol resistant enamel, with color optional. Pins and miscellaneous hardware are manufactured from corrosion resistant materials, or plated as required.

3.5 Characteristics

3.5.1 Dimensions

Dimensions and weight are provided in the figures below. All dimensions and weights are approximated and reference only.

Length (In.) - Without Engine	81 9/16
Width (In.) - Without Engine	106 13/16
Height (In.) - Without Engine	63 5/16
Length (In.)W/ Towbar - Without Engine	158 29/32
Ground Clearance (In.)	13
Total Stand Weight (Lbs)	1,050



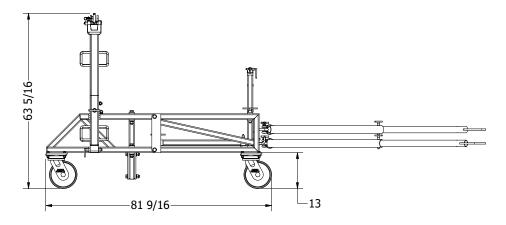
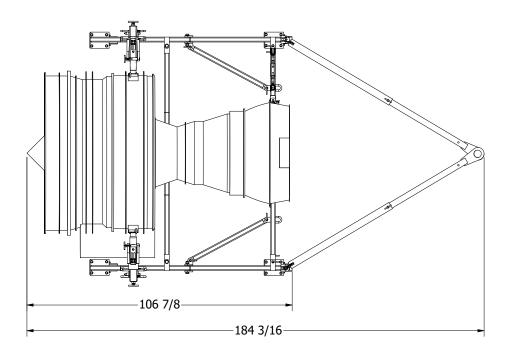


Figure 3.5-1 - AGSE-E058-G02 - Dimensions

3.5.2 Dimensions with Engine

Length (In.) - With Engine	106 7/8
Width (In.) - With Engine	106 13/16
Height (In.) - With Engine	81 15/16
Length (In.)W/ Towbar - With Engine	184 3/16
Ground to Engine Centerline (In.)	48 29/32
Engine Ground Clearance (In.)	15 23/32
Total Stand Weight - With Engine (Lbs)	7,750



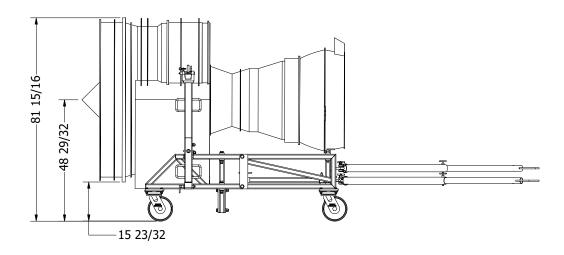


Figure 3.5-2 - AGSE-E058-G02 - Dimensions

4.0 – Maintenance and Inspection

4.1 General

Life expectancy of the stand can be extended indefinitely, if it is properly maintained. By design, there is only minimal periodic servicing required. Annual inspections for damage, weld cracks, or corrosion are recommended. Prior to each use, the stand should be inspected for obvious signs of abuse or shipping damage. Observed damage should require complete inspection of the affected area to ensure structural integrity is not compromised.

4.2 Cleaning and Painting

The stand should be cleaned periodically with a soap and water solution and rinsed thoroughly.

CAUTION

Re-lubricate bearings and screw shaft after cleaning stand.

Damaged paint should be touched-up with paint provided by AGSE or other Skydrol resistant high-grade enamel paint. Superficial scratches are expected during normal usage and will not affect function.

4.3 Scheduled Service

All zerk fittings on the casters should be lubricated every 90 days with the following extreme pressure grease or equivalent grease:

Manufacturer	Product
Mobil Oil Company	Mobilplex E.P. #1
Texaco Oil Company	Texaco E.P. #1
Gulf Oil Corporation	Gulf Crown E.P. #1
Shell Oil Company	Shell Alavania E.P. #1

Visual inspection of the swivel locks and brakes should occur with the scheduled lubrication. All non-painted machined surfaces should have a light grade oil spray as required. Spray with rust inhibitor LPS-3 (MIL-C-16173D, Gr. 2) or equivalent.

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4.4 Scheduled Inspection

CAUTION

Prior to each use, the stand should be inspected for obvious signs of abuse or shipping damage. Observed damage should require complete inspection of the affected area to ensure structural integrity is not compromised.

Annual inspections of machined surfaces, pins, fasteners, and structure are recommended. The machined surfaces (wheels, axles, pivots) are to be visually inspected for signs of wear or corrosion. Action is to be taken immediately if areas are determined to be potentially dangerous to operating personnel, or a detriment to the equipment. Pins and fasteners are to be visually inspected for cracks, damage, or corrosion. Loose fasteners should be tightened. The stand structure is to be visually inspected for damage, weld cracks, or corrosion.

5.0 – Operation

5.1 Stand Erection

- 1) Remove stand components from the shipping container or pallet and inspect for obvious damage.
- 2) Assemble the left and right frame halve pieces (FWD and AFT pieces) together with the hardware provided. Ensure casters are parallel to frame, and swivel locks and brakes are set. See Figure 5.1-1.

NOTICE

Do not tighten bolts down all the way at this point. This will allow some play in structure for hole alignment, and avoid "racking" of frame components.

3) Assemble the FWD and AFT frame halves (left and right pieces) together with the hardware provided. See Figure 5.1-2 & 5.1-3.

NOTICE

A hoist and straps may be used to prop left and right frames while attaching the forward and aft frame pieces.

- 4) Attach the FWD frame assembly to the left and right frame assemblies using bolts provided. See Figure 5.1-4.
- 5) Attach the AFT frame assembly to the left and right frame assemblies using the safety pins. Left and right frame halves may be swiveled to aid in hole alignment. See Figure 5.1-4.
- 6) Attach left and right braces with safety pin assemblies. See Figure 5.1-5.
- 7) Tighten all bolts. Torque bolts to 80 Ft.-Lbs. maximum.
- 8) Attach AFT arm to AFT frame assembly. Place spacers on both sides of bearing, and insert safety pin assembly through arm and spacers. See Figure 5.1-5.
- 9) Attach turnbuckle to aft arm and adjust length until aft arm is vertical.
- 10) Attach forward arms to left and right frame assemblies by installing safety pin through clevis and bottom of arm. Rotate forward arms inward and install bolt. Clip the safety chain to arm. See Figure 5.1-6.
- 11) Insert forward mounts into saddles on forward arms and pin into position.
- 12) Attach towbars to aft end of stand.

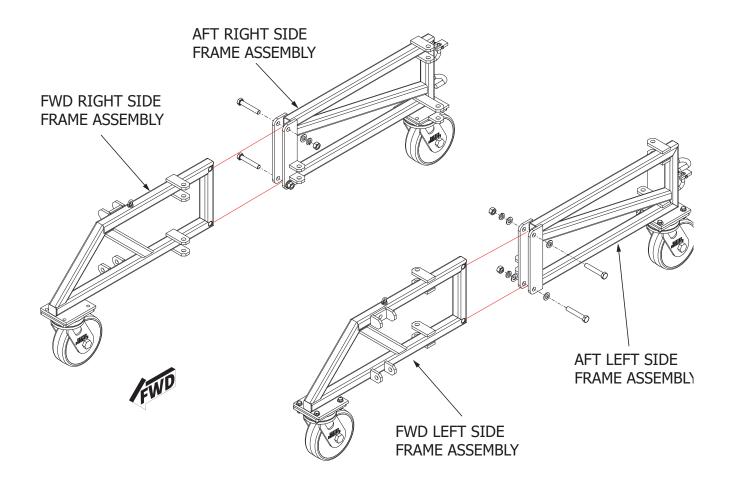


Figure 5.1-1 Left and Right Frame Halves.

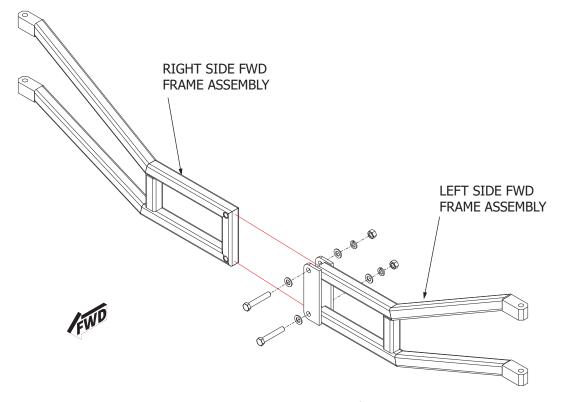


Figure 5.1-2 FWD Frame Halves.

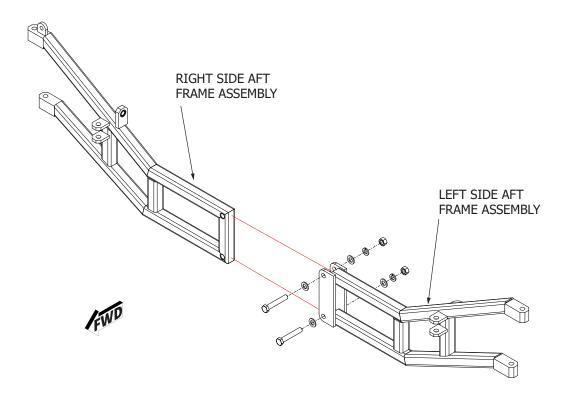


Figure 5.1-3 AFT Frame Halves.

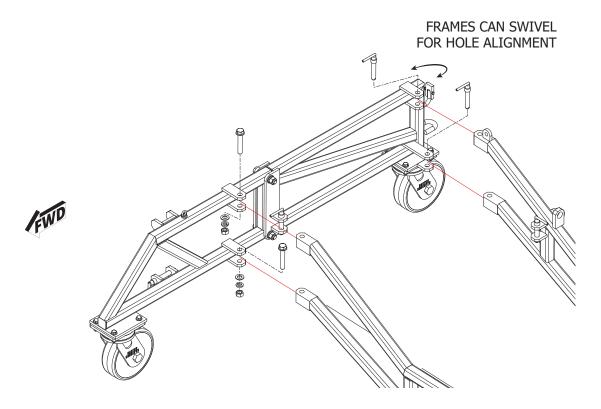


Figure 5.1-4 FWD & AFT Frame Assembly

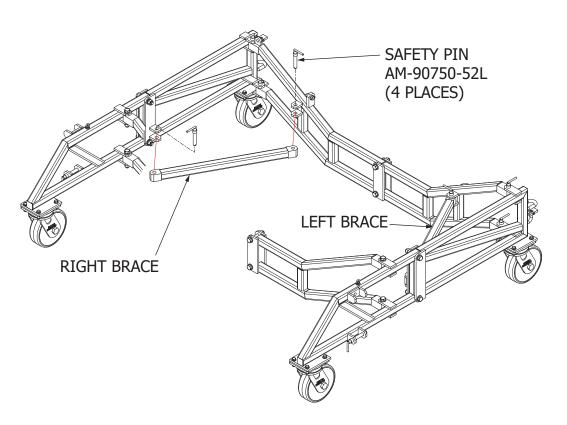


Figure 5.1-5 FWD & AFT Frame Assembly

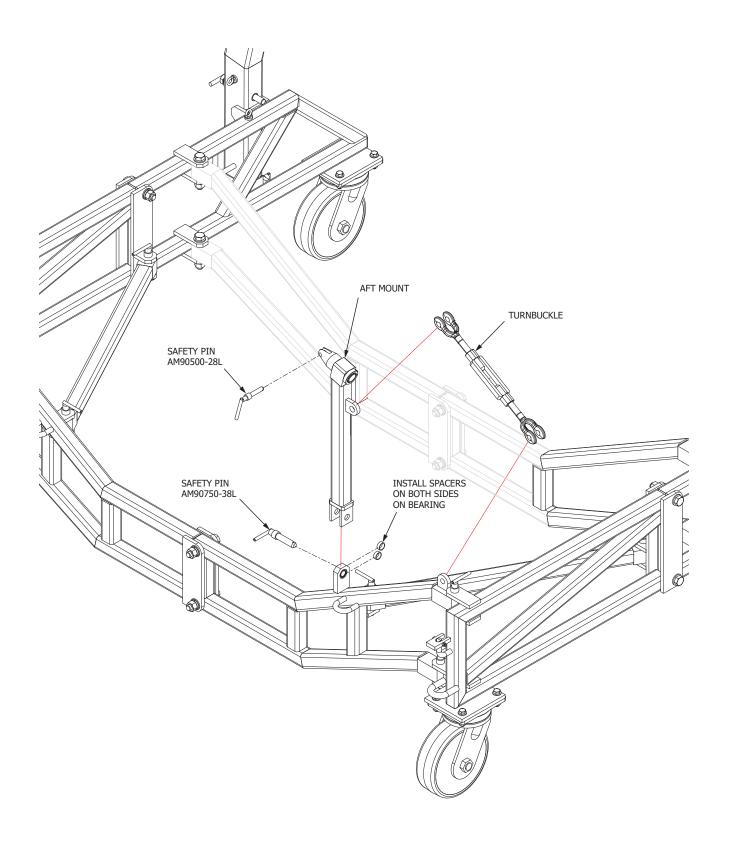


Figure 5.1-6. AFT Arm

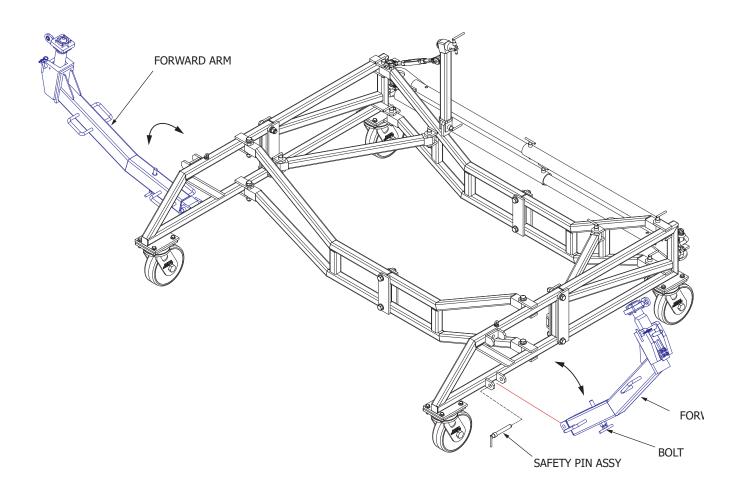


Figure 5.1-7. Forward Arms.

5.2 Engine Installation into Stand Using Overhead Sling

- 1) Inspect stand for obvious damage.
- 2) Install cradle trunnions into engine forward ground handling mounts (H3 and H4) and retain them using the hardware provided. The 1/4-28 socket head cap screws that attach the cradle trunnion mounts to the engine ground handling mounts (H3 and H4) must be torqued to 7-10 Ft-Lbs. Hold aft support arm vertical.

CAUTION

Do Not exceed 10Ft.-Lbs. to torque on cap screws.

3) Position the stand beneath the engine and set the caster brakes.

CAUTION

Minimal clearance exists between the engine and stand. The operator is responsible to ensure the engine does not contact the stand. This may require the removal or adjustment of engine components.

WARNING

Care must be taken when working near suspended loads. Personnel should never stand beneath the suspended load.

- 4) Ensure the safety chains are clipped onto the forward arms. Remove the bolts retaining the forward arms to the frame. Ease the forward arms outward until the chain stops the arm's movement.
- 5) Lower the engine until the gearbox clears the forward left arm. Rotate the forward arms inward and loosely attach the retaining bolt for the arms. Support the aft arm manually and continue to lower the engine until the forward mount trunnions engage with the saddles on the forward arms.
- 6) Fully tighten the forward arm retaining bolts.
- 7) Adjust spanner nut on forward mount (as shown in Figure 5.2-2) to ensure trunnion is fully engaged into bearing cup.
- 8) Lower the engine until the forward mount trunnions are fully seated. Install both pins on each saddle and install the safety clips on the pins. See Figure 5.2-1.
- 9) Continue to lower the engine until the aft arm can be pinned to the aft engine support point. Tighten turnbuckle on aft arm.
- 10) Lower the engine until the stand supports the full weight of engine.
- 11) Remove the engine sling.

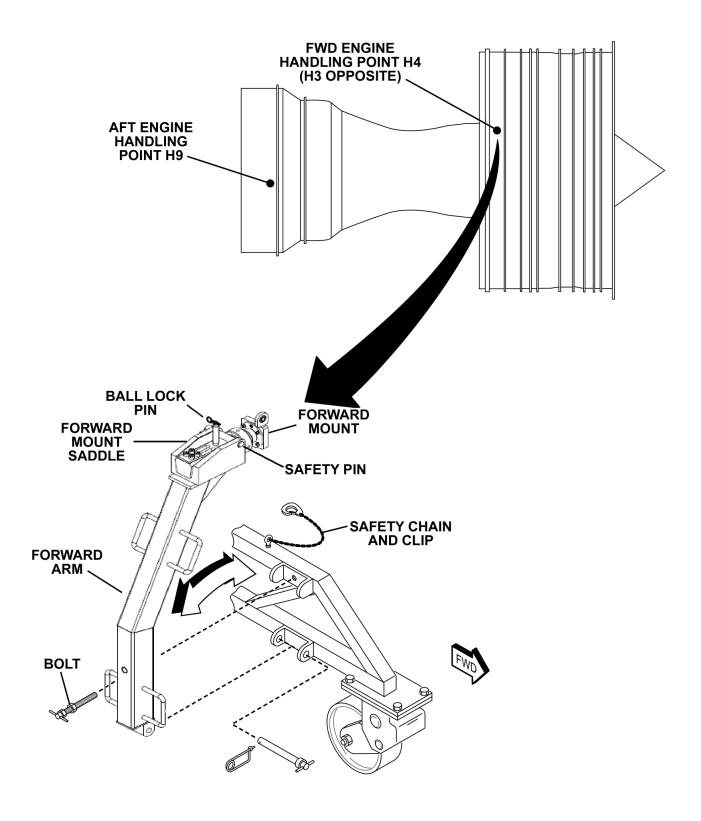


Figure 5.2-1. Forward Mount Installation.

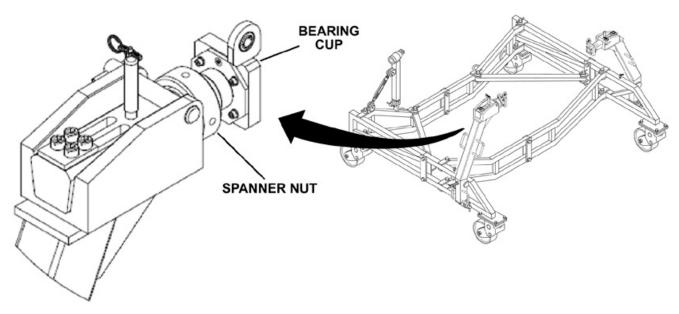


Figure 5.2-2. Spanner Nut Adjustment.

5.3 Engine Bootstrapping

CAUTION

This procedure is not intended to replace the Boeing engine change procedure. Use only as a supplemental guideline.

WARNING

Care must be taken when working near suspended loads. Personnel should never stand beneath suspended loads.

- 1) Inspect stand for obvious damage.
- 2) Install bootstrap beams to aircraft pylon in accordance with the engine change procedure.
- 3) Ensure the safety chains are clipped onto the forward arms. Remove the bolts retaining the forward arms to the frame. Ease the forward arms outward until the chain stops the arm's movement.
- 4) Approaching from the front of the engine (on wing) move the empty stand aftward until the stand is beneath the engine.
- 5) Install cradle trunnions into engine forward ground handling mounts (H3 and H4) and retain them using the hardware provided. The 1/4-28 socket head cap screws that attach the cradle trunnion mounts to the engine ground handling mounts (H3 and H4) must be torqued to 7-10 Ft.-Lbs. Hold AFT support arm vertical.

CAUTION

Do Not exceed 10Ft.-Lbs. to torque on cap screws.

- 6) Connect the bootstrap hoists and dynamometers to the engine in accordance with the engine change procedure.
- 7) Detach the engine from the pylon and lower the engine into the stand.
- 8) Lower the engine until the gearbox clears the forward left arm. Rotate the forward arms inward and loosely attach the retaining bolt for the arms. Support the aft arm manually and continue to lower the engine until the forward mount trunnions engage with the saddles on the forward arms.
- 9) Fully tighten the forward arm retaining bolts.
- 10) Adjust spanner nut on forward mount (as shown in Figure 5.2-2) to ensure trunnion is fully engaged into bearing cup.
- 11) Lower the engine until the forward mount trunnions are fully seated. Install both pins on each saddle and install the safety clips on the pins. See Figure 5.2-1.
- 12) Continue to lower the engine until the aft arm can be pinned to the AFT engine support point. Tighten turnbuckle on AFT arm.
- 13) Lower the engine until the stand supports the full weight of engine.
- 14) Detach the hoists and dynamometers from the engine.
- 15) Move the engine and stand away from the aircraft in a forward direction.

6.0 – SAFETY

6.1 Stress

Design stress safety factors are compliant with applicable CFMI Specifications.

6.2 General

Most accidents are the result of violating standard safety rules in operation or improper servicing and maintenance of equipment.

Many safety features have been incorporated into the design to assist in safe operation of this equipment. These items do not fool-proof the equipment nor do they replace the operator's responsibility to operate the equipment in a safe manner.

CAUTION

Any deficiency revealed through inspection must be reported to supervisory personnel. A determination must be made prior to resuming operation, as to whether the deficiency constitutes a safety hazard to personnel or equipment.

It is the operator's responsibility to report any deficiencies, unusual noises, or operating conditions to supervisory personnel. It is also the responsibility of the user of this equipment to discontinue use until they are assured that the deficiency has been corrected.

6.3 Prevention

A good preventative maintenance program should include periodic lubrication, adjustment, and immediate correction of defects revealed through inspections. Preventive maintenance will not only contribute to safe operation, but will also extend useful service life as well.

6.4 Risk Assessment

6.4.1 Limits of the Machinery

The AGSE-E058-G02 Light Weight Breakdown Stand is a commercial product designed specifically to support the CFM International (CFMI) CFM56-7 engine. The equipment is to be used only by trained mechanics free from physical impairment and who are familiar with this or similar fixture. The equipment is not to be used or made available to the general public.

6.4.2 Risk Assessment and Residual Risk

The risk evaluation performed was based on objective observation based on the experience of AGSE with similar equipment. Necessary Warning and Caution Notes have been incorporated into the Operation Section of the CFM56-7 Light Weight Breakdown Stand Operation Manual along with instructions. Stencils also have been put on the equipment to identify hazardous and/or potential risk areas.

The operation of the AGSE-E058-G02 Light Weight Breakdown Stand can be with medium risk of injury and is considered safe to use under supervision. Low residual risks include potential pinch points during operation of the equipment.

Equipment detailed in this manual has undergone stringent safety analyzing using methods and standards set forth withi European Standard EN 1050 and is considered to be safe for its intended use. Reports on risk analysis and evaluation according to 2006/42/EC Machinery Directive (17 May 2006) are available upon request.

EC DECLARATION OF CONFORMITY

The machinery listed below fulfills all relevant provisions of the directives listed:

2006/42/EC Machinery Directive (2006/05/17)

Machinery covered by this	Declaration:
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Description: Light Weight Breakdown Stand, CFM56-7

Model: AGSE-E058
Part Number: AGSE-E058-G02
Serial Number:

<u>Harmonized Standards</u>:

- ISO 12100:2010 Safety of Machinery General Principles for Design Risk Assessment and Risk Reduction
- ISO/TR 14121-2:2012 Safety of Machinery Risk Assessment Part 2: Practical Guidance and Examples of Methods

Standards and Specifications:

Place:

AGSE Quality System Procedure Number QSP-006

Santa Fe Springs, California, USA

Aerospace Recommended Practice Standard, SAE ARP 1840, 2007/02 Rev B

Date:	
Signed:	Quality Representative
Technical File:	Pedro Fernandes Advanced Ground Systems Engineering Pct Ana Maria Bastos, N20 A-dos-Cunhados, Portugal 2560-005 +351-96-520-4851

7.0 – Statement of Warranty

7.1 Statement of Warranty

Advanced Ground Systems Engineering LLC (AGSE) warrants to original purchasers that it's products will be free of defects in material and workmanship under normal use and conditions for claims received within a period of one year from date of purchase (final billing date), and to the extent that if any AGSE product fails in operation because of such defect, the company will replace or repair, at its option, the defective article. Prior to the repair or replacement of any defective product, the company shall be notified in writing as to the nature of the defect. The company shall assume no liability for freight, disassembly, removal, refitting and installation charges on any article returned unless such charge(s) is approved by AGSE in writing prior to the return. On component items purchased by AGSE for incorporation into an AGSE manufactured product, only the component manufacturer's warranty (if any) shall apply to that component. Said manufacturers warranty shall be passed on to AGSE's customer to the extent permitted. This warranty is applicable only when AGSE products are operated for intended purposes within the recommended procedures, load limits, properly maintained, not damaged or abused, etc., Including as indicated in company manuals, catalogs, and drawings. All warranty claims must be applied for within sixty days from when the defect becomes known. The foregoing warranty is in lieu of all other warranties, or liabilities, either expressed or implied, and AGSE expressly excludes all implied warranties of merchantability and fitness for a particular purpose and all non-infringement warranties as well as disclaims all liabilities to third parties. In no event shall AGSE be liable for any amounts in excess of the purchase price of the product.

NOTICE

Failure to conduct periodic inspections, routine maintenance, or improper operation will result in the voiding of the warranty.

Rev.B

8.0 - Parts Breakdown

8.1 General

The following pages can be used in the identification of components used in the product described in this manual. Parts Lists are broken down by "ITEM," "PART NUMBER," "QTY," and "DESCRIPTION".

NOTICE

"ITEM" numbers are for reference to the Parts List only. Do not order replacement parts by "ITEM" number. Order parts by "PART NUMBER" only.

8.2 Illustrated Parts Breakdown

IPB Figure 1 - AGSE-E058-G02 Light Weight Breakdown Stand

ITEM	PART NUMBER	QTY	PART DESCRIPTION
	AGSE-E058-G02	-	Lt. Wt. Breakdown Stand Assy (Figure 8.1-1)
1	AGSE-E058-101	1	L.H. FWD Mount Support
2	AGSE-E058-102	1	L.H. FWD Side Frame
3	AGSE-E058-103	1	L.H. AFT Side Frame
4	AGSE-E058-104	1	L.H. FWD Crossmember
5	AGSE-E058-105	2	Brace
6	AGSE-E058-106	1	L.H. AFT Crossmember
7	AGSE-E058-107	1	AFT Mount Support
8	AGSE-E058-108	1	R.H. FWD Crossmember
11	AGSE-E058-109	1	R.H. AFT Crossmember
14	AGSE-E058-110	1	Clamping Bolt
15	AGSE-E058-111	1	R.H. FWD Side Frame
16	AGSE-E058-112	1	R.H. AFT Side Frame
17	AGSE-E058-113	1	R.H. FWD Mount Support

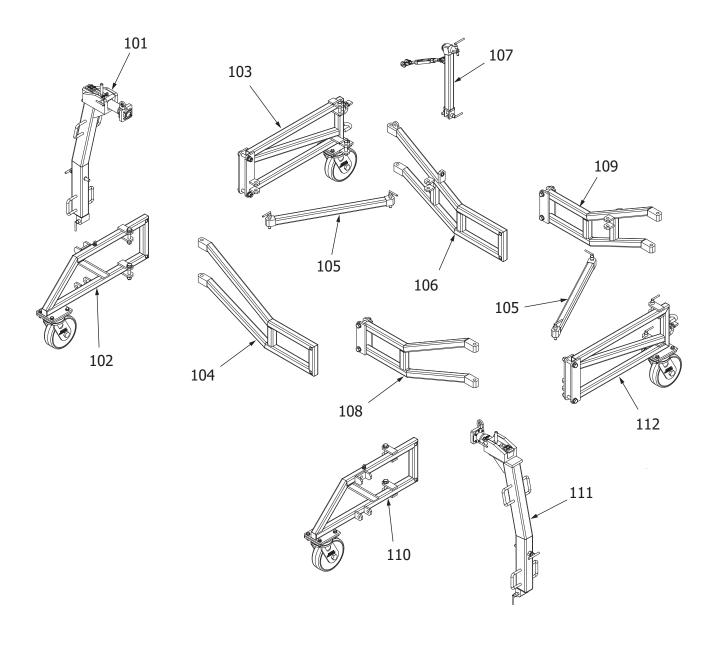


Figure 8.1-1 Light Weight Breakdown Stand Assembly

IPB Figure 2 - AGSE-E058-G02 Light Weight Breakdown Stand

ITEM	PART NUMBER	QTY	PART DESCRIPTION
	AGSE-E058-G02	-	Lt. Wt. Breakdown Stand Assy (Figure 8.2-1)
1	AGSE-E05801-P01	1	L.H. AFT Frame Assy
2	AGSE-E05801-P02	1	R.H. AFT Frame Assy
3	AGSE-E05801-P03	1	L.H. FWD Frame Assy
4	AGSE-E05801-P04	1	R.H. FWD Frame Assy
5	AGSE-E05802-P01	1	L.H. FWD Crossmember
6	AGSE-E05802-P02	1	R.H. FWD Crossmember
7	AGSE-E05802-P03	1	L.H. AFT Crossmember
8	AGSE-E05802-P04	1	R.H. AFT Crossmember
11	AGSE-E05803-P03	1	AFT Mount Support
14	AGSE-E05802-P05	2	Clamping Bolt
15	AGSE-E05802-P06	2	Brace
16	AM-2718-C6	1	Trunnion
17	AM-2811-1314	1	Pin Assy
18	AGSE-S00193-P06	1	Threaded Collar
19	AM-90750-38L	1	Safety Pin Assy
21	AM-2811-1306	2	Retainer Pin
22	AGSE-S00202-P02	2	Lock Pin
23	AM-2529-C1	2	Tow Bar
24	3956T1	2	Snap Spring Latch
25	3711T23	2	Connection Link
26	8949T325	A/R	Chain
27	AGSE-S00184-P05	1	Bearing
28	AM-2811-4837	2	Spacer
29	AM-90750-68L	2	Pin Assy
30	AM-90750-52L	4	Pin Assy

IPB Figure 2 - AGSE-E058-G02 Light Weight Breakdown Stand (Continued)

ITEM	PART NUMBER	QTY	PART DESCRIPTION
31	AGSE-S00104-12C072A0	1 12	Screw, Hex Head
32	023-885	4	Caster
33	AGSE-S00104-08C032A0	1 16	Screw, Hex Head
34	AGSE-S00150-08CA01	16	Nut
35	AGSE-S00135-08A17	16	Washer, Locking
36	AGSE-S00150-08CA01	12	Nut
37	AGSE-S00135-12A17	12	Washer, Locking
38	AGSE-S00235-P02	1	Turnbuckle
39	AM-2529-A1	2	Tow Bar Lug
40	AM-1803-607	2	Towbar Stow Bracket Assy
41	AGSE-E05805-P01	1	H4 - R.H. FWD Mount Support
42	AGSE-E05805-P02	1	H3 - L.H. FWD Mount Support
43	AM-2811-4200	1	H3 - Mount Assy
44	AM-2811-4210	1	H4 - Mount Assy
45	AM-2811-4840	1	Spanner Wrench
46	AGSE-S00244-P05	1	Storage Container
47	AGSE-S00131-12A17	24	Washer

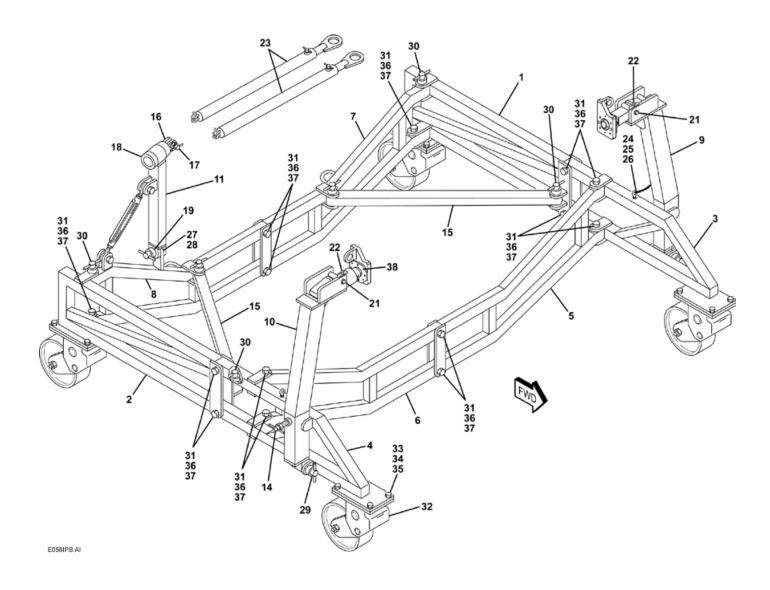


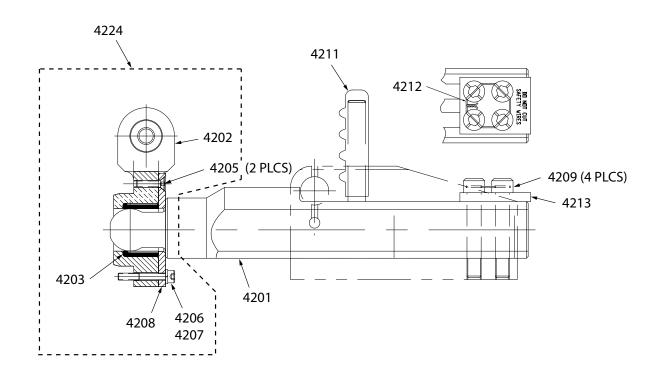
Figure 8.2-1 Light Weight Breakdown Stand, Top Assembly

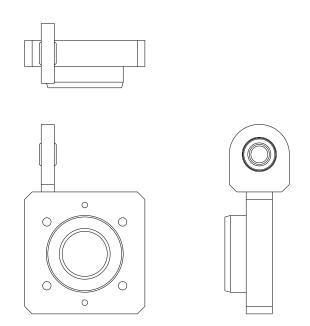
IPB Figure 3 - AM-2811-4200 FWD Mount Assembly H3

ITEM	PART NUMBER	QTY	PART DESCRIPTION
	AM-2811-4200	-	FWD Mount Assembly H3 (Figure 8.3-1)
4201	AM-2811-4500	1	Fwd Mtg Shaft H3
4209	AM-2811-4317	1	Bolt - Modified
4211	AGSE-S00207-P01	1	Vinyl Grip - Black
4212	Commercial	A/R	Safety Wire032 Dia SS
4213	AM-2811-4312	1	Washer Plate
4224	AM-2811-4224	1	Insert Assembly (Components Detailed Below)

AM-2811-4224 Insert Assembly - Details

	AM2811-4224	-	Insert Assembly
			(Figure 8.3-1)
4202	AM-2811-4315	1	Insert
4203	AM-2811-4311	1	Bushing
4205	AGSE-S00114-04C016A27	1	Screw, Flat Head
4206	AM-2811-4314	4	Captive Screw
4207	AGSE-S00135-04A17	4	Washer, Locking
4208	AM-2811-4305	1	Retainer





ORIENTATION DETAIL OF ITEM 4202 (AM-2811-4315), INSERT FOR AM-2811-4200 H3 MOUNT ASSEMBLY

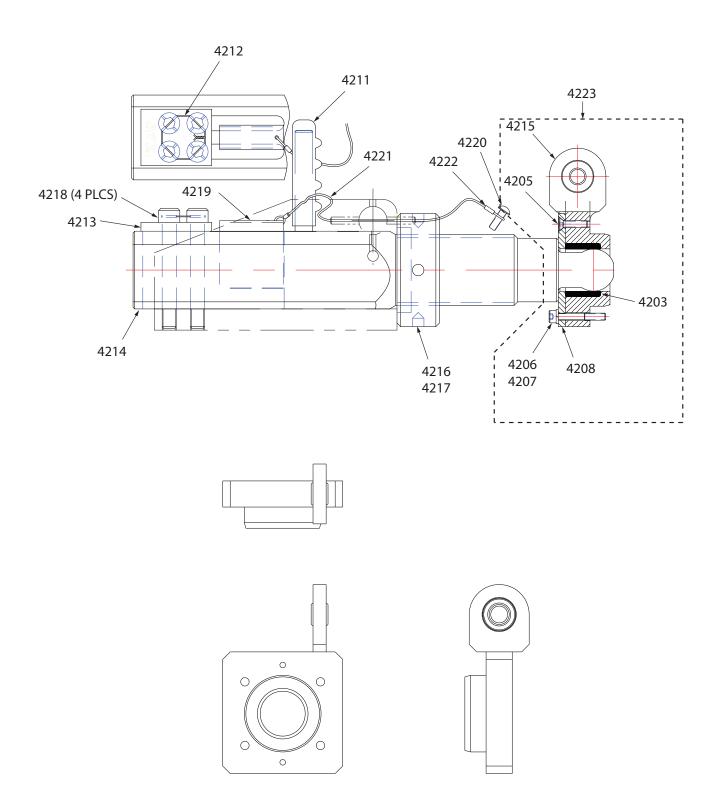
Figure 8.3-1 FWD Mount Assembly H4 - RH

IPB Figure 4 - AM-2811-4210 FWD Mount Assembly H4

ITEM	PART NUMBER	QTY	PART DESCRIPTION
	AM-2811-4210	-	Mount Assy H4 (Figure 8.4-1)
4211	AGSE-S00207-P01	1	Vinyl Grip - Black
4212	Commercial	A/R	Safety Wire032 Dia SS
4213	AM-2811-4312	1	Washer Plate
4214	AM-2811-4503	1	Fwd Mtg Shaft H4
4216	AGSE-S00121-04CG08A03	5 1	Set Screw
4217	AM-2811-4313	1	Mtg Adjust Nut
4218	AM-2811-4318	4	Bolt - Modified
4219	AM-2811-5400	1	Spring Clip
4220	AGSE-S00116-04C008A1	7 1	Screw, Round Head
4221	CL-4-C	1	Nylon Cable - 15" Lg.
4222	CL-5-F	1	Ferrule
4223	AM-2811-4223	1	Insert Assy (Components detailed below)

AM-2811-4223 Insert Assembly - Details

ITEM	PART NUMBER	QTY	PART DESCRIPTION
	AM-2811-4223	-	Mount Assy H4
			(Figure 8.4-1)
4203	AM-2811-4311	1	Bushing
4205	AGSE-S00114-04C016A27	7 2	SHFS - 1/4-20 UNC-2A x 1" Lg Zinc Plt
4206	AM-2811-4314	4	Captive Screw
4207	AGSE-S00135-04A17	4	Lock Washer - 1/4 I.D SS
4208	AM-2811-4305	1	Retainer
4215	AM-2811-4316	1	Insert



ORIENTATION DETAIL OF ITEM 4202 (AM-2811-4316), INSERT FOR AM-2811-4210 H4 MOUNT ASSEMBLY

Figure 8.4-1 FWD Mount Assembly H4 - RH

9.0 - Stencils, Decals, and Placards

9.1 General

Various stencils, decals, and placards are added to the equipment to provide warnings, cautions, and general information. These items should be reviewed and understood by maintenance and user personnel.

9.2 Stencils and Placards

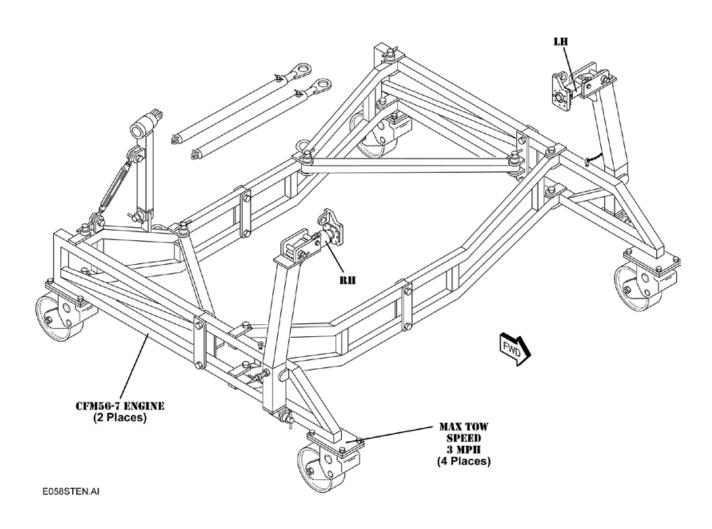


Figure 8.9-1 Light Weight Breakdown Stand Stencils

10.0 - Recommended Spares

10.1 Critical Item

AGSE defines "critical" items as those items, if broken or missing, that would render the equipment inoperable or severely impair equipment operation. Since most of these items are also long leads, it is AGSE's recommendation that such items be identified, purchased, and stocked by the customer. In the remote event of "critical" item failure, the equipment can be quickly repaired and placed back in service with minimal down time.

AGSE does not typically stock all components used with the equipment, so immediate shipment of "critical" items may not always be possible. AGSE will respond to customer requests for quotation on any spare parts, and expedite orders for spare parts as required. The customer should never assume immediate delivery is always possible.

It is the responsibility of the operator of the equipment to review the recommended spares list and balance costs against equipment down-time. The list can be adjusted by the operator based on the actual service life of components experienced during equipment usage.

PART NUMBER	RECOMMENDED STOCK QTY	DESCRIPTION
AM-2811-1314	1	Pin Assembly
AM-90750-38L	1	Pin Assembly
AM-90750-68L	2	Pin Assembly
AM-90750-52L	2	Pin Assembly
AGSE-S00104-12C072A01	4	Screw, Hex Head