

THOR-50M Drawing Revisions

August 2018

Page #	DWG/PART #	REV.	Description	Revision	Comments
2	472-0000 Sht. 1 of 6	H	Mechanical Assembly	ADDED SHT. 4 OF 6 EXTERNAL DIMENSIONS ADDED SHT. 5 OF 6 PARTS GROUPING FOR WEIGHT & C.G. ADDED SHT. 6 OF 6 COMPLEX/IRREGULAR SHAPED PARTS ON SHT. 3 OF 6 SENSOR/LOAD CELL LOCATIONS * REMOVED SAS72-S113 - TILT SENSOR, DUEL AXIS * ADDED ITEM #22 & 23 * QTY. OF ITEM #13 WAS 1 * QTY. OF ITEM #14 WAS 5 * ADDED TILT SENSOR TITLES AND ACCELEROMETER MOUNT TITLES * BALLOON #20 IN THE LOWER LEG WAS #21 * BALLOON #21 IN THE LOWER LEG AND HEAD WAS #22 * ADDED NOTE #1	
3	472-0000 Sht. 2 of 6	H	Ground Strap Locations		
4	472-0000 Sht. 3 of 6	H	Sensor/Load Cell Locations		Updated Instrumentation
5	472-0000 Sht. 4 of 6	H	External Dimensions		NEW DRAWING
6	472-0000 Sht. 5 of 6	H	Parts Grouping for Weight & C.G.		NEW DRAWING
7	472-0000 Sht. 6 of 6	H	Complex/Irregular Shaped Parts		NEW DRAWING
8	472-2115		Neck C.G. and Part Grouping		N/A
9	472-3015		Thorax C.G. and Parts Grouping	N/A	NEW DRAWING
10	472-4715		Lower Abdomen C.G. and Parts Grouping	N/A	NEW DRAWING
11	472-6515		Lower Arm C.G. and Parts Grouping	N/A	NEW DRAWING
12	472-5115-1		Upper Leg, Left - C.G. and Parts Grouping	N/A	NEW DRAWING
13	472-5115-2		Upper Leg, Right - C.G. and Parts Grouping	N/A	NEW DRAWING
14	472-7015-1		Lower Leg, Left - C.G. and Parts Grouping	N/A	NEW DRAWING
15	472-7015-2		Lower Leg, Right - C.G. and Parts Grouping	N/A	NEW DRAWING
16	472-7815-1		Molded Shoe, Left - C.G. and Parts Grouping	N/A	NEW DRAWING
17	472-7815-2		Molded Shoe, Right - C.G. and Parts Grouping	N/A	NEW DRAWING
18	472-1000	F	Head Assembly	IN NOTE 3 "QUALIFICATION" WAS "CERTIFICATION".	
20	472-1111	C	Head, Machined	(S.F. DOWEL) DOWEL PIN HOLES IN TOP OF HEAD WHERE (P.F. DOWEL)	
		D		HOLE DIMENSION 4X Ø3.7 THRU v Ø7.0 AS SHOWN IN SEC C-C WAS 4X Ø3.7 THRU v Ø6.0 AS SHOWN IN SEC C-C	Clerical correction, Revised as built
28	472-1411	C	Chin Guard	ADDED CUTOUT FOR CHIN PLATE; DIM. 2X Ø3.050 +.010/-.000 REAM $\nabla$ 6.4 $\sphericalangle$ Ø3.8 X 90° (S.F. DOWEL) WAS 2X Ø3.03 +.03/-.00 $\nabla$ 6.4 $\sphericalangle$ Ø3.8 X 90° (S.F. DOWEL); DIM. 2X Ø4.80 +.13/-.03 THRU $\perp$ Ø8.25 x $\nabla$ 5.0 AS SHOWN WAS Ø4.3 THRU $\perp$ Ø8.5 $\nabla$ 5.0 AS SHOWN	Added cutout for clearance of CHIN LOAD CELL PLATE 472-1416
31	472-1115	B	Head C.G. Part Group for Ballast Weight Design	REVISED NOTES 6 & 7 AND ADDED C.G. DIMENSIONS	Corrected weight and CG location dimensions to match what physical part measured
35	472-1200	E	Accelerometer Mounting Plate Assembly, Head	ADDED VIEW D-D; REMOVED (SA572-S113, TILT SENSOR, OPTIONAL ATTACH WITH 1X 5001086 - M4-0.7 x 12) FROM NOTE	View D-D added to show orientation of Y Axis ARS, Tilt Sensor SA572-S113, 8K, no longer used
39	472-1320	C	Skin Assembly	IN TITLE BLOCK THOR-50M WAS THOR	Correct dummy title
40	472-1321	D	Head Skin, Molded	IN TITLE BLOCK THOR-50M WAS THOR	Correct dummy title
42	472-1310	B	Cap Skin	IN TITLE BLOCK THOR-50M WAS THOR	Correct dummy title
43	472-2000	E	Mechanical Assembly Neck	REVISED ITEM #14 - 472-2600 - LOWER NECK LOAD CELL STRUCTURAL REPLACEMENT; ITEM #15 - 5000469 - SCREW, FHCS M2X0.4 X 6 WAS 5000469 - SCREW, FHCS M4X0.4 X 6; ITEM #21 - 5000076 - SCREW, SHCS M4-0.7 x 6 WAS 5000989 - M4-0.7 x 8 LG. SHCS	Revised LOWER NECK LOAD CELL STRUCTURAL REPLACEMENT to match the LOWER NECK LOAD CELL
44	472-2100	C	Cable Assembly, Neck	REMOVED PART #472-2107 – CENTER CABLE LOWER BUSHING 1, NECK; REMOVED NOTE #2; ITEM #9 – 5000469 – SCREW, FHCS M2X0.4 X 6 WAS 5000469 – SCREW, FHCS M4X0.4 X 6	By revising 472-2600 LOWER NECK LOAD CELL STRUCTURAL REPLACEMENT it allow us to use only one bushing for the center cable
45	472-2110	D	Assembly, Neck	TITLE WAS FRONT STOP ASSEMBLY, NECK	Clerical correction

THOR-50M Drawing Revisions

August 2018

Page #	DWG/PART #	REV.	Description	Revision	Comments
60	472-2150	E	Front Cable Assembly	DIMENSION 336.3 WAS 344.3	Shorted cable due to contact with top of skull plug
		F		IN DETAIL Z REMOVED DIMENSIONS 31, 29, & 28; ADDED DIMENSIONS 16, 17, & 18; DIMENSION 46 ±1 WAS 54	Changed orientation of dimension on Threaded Swag
N/A	472-2107		Center Cable Lower Bushing, Neck	N/A	DRAWING REMOVED FROM PACKAGE
76	472-2210	B	Head/Neck Mounting Platform	ADDED "SLOT" TO DIMENSIONS; MOVED SLOT DIMENSIONS FROM SECTION A-A TO SIDE VIEW; 4X Ø6.80 +0.15/-0.03 THRU C'SINK Ø14.2 X 90° WAS 4X Ø6.5 THRU C'SINK Ø14.2 X 90°; M22x2.5 WAS M22x3; ADDED 2X R2.0 TO INSIDE CORNERS; UPDATE KEENSERT HOLE CALLOUTS	
		C		HOLE DIMENSION 4X Ø5.50 +.08/-.03 ∇12.2 MAX √6.10 +.25/-.00 x 90° M6x0.75 - 6H ∇6.50 MIN. WAS HOLE DIMENSION 4X Ø5.50 +.08/-.03 ∇ THRU √ Ø6.10 +.25/-.00 x 90° M6x0.75 - 6H ∇6.50 MIN.	Updated dimensions to match part as built
86	472-2220	D	Front Spring Assembly	ITEM #1 DESCRIPTION WAS SPRING, 16 X 8 I.D. X 76; ADDED NOTE 4	Revised spring specification to match part as used
88	472-2222	B	Neck Front Spring Damping Tube	IN NOTE #1 "QUALIFICATION" WAS "CERTIFICATION"	Clerical correction
89	472-2240	D	Rear Spring Assembly	ITEM #1 DESCRIPTION WAS SPRING, 16 X 8 I.D. X 89; ADDED NOTE 4	Revised spring specification to match part as used
90	472-2241	C	Neck Rear Spring Damping Tube	IN NOTE #1 "QUALIFICATION" WAS "CERTIFICATION"	
99	472-2600	C	Lower Neck Load Cell Structural Replacement	REVISED ITEM #1 - 472-2610 - TOP, LOWER NECK LOAD CELL STRUCTURAL REPLACEMENT	Revised 472-2610 - TOP, LOWER NECK LOAD CELL STRUCTURAL REPLACEMENT center hole diameter to match the center hole diameter of the LOWER NECK LOAD CELL
105	472-3000	F	Thorax Mechanical Assembly	REVISED ITEM #19 - 472-6517 - THOR LIFT STRAP; ADDED ITEMS #39 & 40; REMOVED NOTE #1; DESCRIPTION OF ITEM #36 - PART #5001126 WAS M5 FLAT WASHER LARGE OD SS; ITEM #21 WAS PART #5000654 - M5 X 0.8 X 12 LG. BHCS	Revised lift strap to help alleviate fraying
106	472-3600	F	Spine Mechanical Assembly	ITEM # 8 PART #5001092V QTY. WAS 4; ADDED ITEM #20 PART #5001090 - SCREW, FHCS M8x1.25 x 12; ITEM #15 QTY. WAS 2, PART NUMBER WAS 5000326, DESCRIPTION WAS SCREW, FHCS M4-0.7 x 12; ITEM #16 PART NUMBER WAS 472-3775-1, DESCRIPTION WAS TILT SENSOR ASSEMBLY, T6, SA572-S113; ITEM #19 PART NUMBER WAS 472-3776-1, DESCRIPTION WAS TILT SENSOR ASSEMBLY., T12, SA572-S113; ITEM #20 PART NUMBER WAS 472-3777-1, DESCRIPTION WAS TILT SENSOR ASSY., PELVIS, SA572-S113; ITEM #21 PART NUMBER WAS 472-3731, DESCRIPTION WAS THORACIC SPINE LOAD CELL FLEX JOINT ADAPTOR PLATE ASSY.; REMOVED ITEM #28, 29, AND 31; ITEM #27 WAS #30; ITEM #29 WAS ITEM #33; REVISED ITEM #2 PART # 472-3620 - UPPER THORACIC SPINEBOX WELDMENT; REVISED ITEM #27 - 472-3857 - T1 ACCEL. MOUNT ASSEMBLY AND RELOCATED TO THE RIGHT SIDE OF THE UPPER THORACIC SPINEBOX WELDMENT - 472-3620	Removed the optional SA572-S11 TILT SENSORS and redesigned the lower thorax, lumbar spine, and pelvis tilt sensor mounts to increase the accuracy/repeatability of the tilt sensors
107	472-3630	C	Neck Pitch Change Mechanism Assembly	REMOVED TILT SENSOR SA572-S111 MOUNTING HOLE AND DOWEL PIN	Tilt sensor SA572-S11 removed as optional instrumentation
		D		REVISED ITEMS 1, 2, 3, 4, & 5	Revised for ease of fabrication
108	472-3632	C	Neck Pitch Change Mechanism, Star Pattern 1	HOLE DIMENSION Ø10.4 THRU □ Ø26.0 ∇1.6 WAS Ø10.4 THRU □ Ø19.1 ∇1.6, 2X M5x0.8 THRU WAS 2X M5x0.8 ∇7.0 (FLAT BOTTOM), AND 2X Ø6.08 +.01/-.00 THRU WAS 2X Ø6.03 +.02/-.00 ∇7.1	Revised for ease of fabrication

**THOR-50M Drawing Revisions**

August 2018

Page #	DWG/PART #	REV.	Description	Revision	Comments
109	472-3631	C	Neck Pitch Change Mechanism, Star Pattern 2		Revised for ease of fabrication
110	472-3633	B	Neck Pitch Change Mechanism Base Plate	HOLE DIMENSION 2X Ø5.40 +.13/-.03 THRU $\perp$ Ø8.40 +.13/-.03 $\nabla$ 11.10 WAS 2X Ø6.02 +.03/-.00 THRU $\perp$ Ø8.4 $\nabla$ 11.10; HOLE DIMENSION 4X Ø6.80 +.13/-.03 WAS 4X Ø6.4 THRU	Revised for ease of fabrication
111	472-3634	B	Neck Pitch Change Mechanism Bolt	NOTE 1 WAS MAKE FROM M6 x 10 SHOULDER SCREW (5001122); MODIFY AS SHOWN, DIMENSION 8.0 +0.0/-0.2; ADDED DIMENSION 5 MAX., AND DIMENSION (16.0)	Revised for ease of fabrication
112	472-3636	D	Neck Pitch Change Mechanism Top Plate	REMOVED HOLES Ø4.4 THRU C'BORE Ø7.5 DEPTH 4.3 & Ø3.000 +.000/+0.10 THRU (P.F. DOWEL); REMOVED NOTE 6 AND ITEM #1 - 5000284 - M3 X 10 LG. DOWEL PIN	Removed mounting holes for tilt sensor SA572-S11
		E		HOLE DIMENSION 2X Ø5.40 +.13/-.03 THRU $\perp$ Ø8.40 +.13/-.03 $\nabla$ 5.1 WAS 2X Ø6.02 +.03/-.00 THRU $\perp$ Ø8.4 $\nabla$ 5.1, AND 2X Ø6.000 +.000/-.013 THRU (P.F. DOWEL) WAS 2X Ø6.000 +.000/+0.013 THRU (P.F. DOWEL)	Revised for ease of fabrication of the Neck Pitch Change Mechanism Assembly
113	472-3620	D	Upper Thoracic Spinebox Weldment	QTY. OF ITEM #6 WAS 2 AND PART # WAS 5000933; ADDED ITEM #7 PART #5000169V - PIN, DOWEL M1.5 x 8 SS	Added extra dowel pin and changed size from Ø2.0 to Ø2.5, Added dowel pins for T1 Mount
		E		DIMENSION 3.0 WAS 4.0, PART #5000167 - PIN, DOWEL M1.5 x 6 WAS PART #5000169V - PIN, DOWEL M1.5 x 8 SS	Revised to match as Built
115	472-3621	F	Upper Thoracic Spine Side Plate, Right	HOLE NOTE 2X Ø2.500 +.000/-.013 THRU (P.F. DOWEL) WAS Ø2.000 +.000/-.013 THRU (P.F. DOWEL)	Added extra dowel pin and changed size from Ø2.0 to Ø2.5
116	472-3622	F	Upper Thoracic Spine Side Plate, Left	HOLE NOTE 2X Ø2.500 +.000/-.013 THRU (P.F. DOWEL) WAS Ø2.000 +.000/-.013 THRU (P.F. DOWEL); ADDED HOLES 2X Ø1.500 +.000/-.010 $\nabla$ 6.0 (P.F. FOR 1.5mm DOWEL)	Added extra dowel pin and changed size from Ø2.0 to Ø2.5; Added dowel pins for T1 mount
		G		DIMENSION 4.40 WAS 5.00, HOLE DIMENSION 2X Ø1.500 +.000/-.010 $\nabla$ 3.0 (P.F. FOR 1.5mm DOWEL) WAS 2X Ø1.500 +.000/-.010 $\nabla$ 6.0 (P.F. FOR 1.5mm DOWEL)	Revised to match as Built
127	472-3650	C	Lower Thoracic Spine Assembly	REVISED ITEM #1 472-3660 – LOWER THORACIC SPINE WELDED ASSEMBLY; ADDED ITEM #3 5000869 - PIN, DOWEL M2.5 X 8 LG.; ADDED DIM, 4X 3.3 AND 2X 4.8	Added holes and dowel pins for mounting new tilt sensor
128	472-3660	D	Lower Thoracic Spine Welded Assembly	REVISED ITEM #4 - 472-3662; ADDED NOTE #5	Added holes for redesign tilt sensor mount and added option to machine out of on block
129	472-3664	D	Rib Mounting Plate, Lower Thoracic Spine	HOLE DIM. Ø3.00 +.00/-.01 REAM 7.00 (P.F. FOR DOWEL PIN) WAS Ø3.000 +.00/-.013 THRU; HOLE DIM. 2X Ø6.80 +0.15/-0.03 THRU M8x1.5	Re-dimensioned for ease of machining
130	472-3661	B	Top Plate, Lower Thoracic Spine	DIM. Ø62.3 WAS 62.2; HOLE DIM. 4X Ø6.80 +0.15/-0.03 THRU WAS 4X Ø6.4 THRU	Changed dimensions for ease of fit-up
131	472-3663	B	Lower Thoracic Spine Bottom Plate	HOLE DIM. 4X Ø8.80 +.15/-.03 THRU C'SINK Ø18.2 X 90° WAS 4X Ø8.4 THRU C'SINK Ø16.5 X 90°	Changed dimensions for ease of fit-up
132	472-3662	C	Central Plate, Lower Thoracic Spine	RE-DIMENSIONED; HOLE DIM. 2X Ø3.40 +.13/-.03 THRU C'BORE Ø6.0 +.13/-.03 $\nabla$ 4.00 WAS Ø3.2 THRU C'SINK Ø6.3 X 90°, 2X Ø1.60 +0.10/-0.03 THRU M2x04 $\nabla$ 6.0 WAS 2X DRILL THRU AND TAP M2x0.4 $\nabla$ 6.0, 2X Ø2.50 +.00/-.01 7.0 WAS Ø3.000 +.000/-.013 $\nabla$ 7.50, AND 2X Ø8.80 +.15/-.03 THRU WAS 2X Ø8.3 THRU	Added holes for new tilt sensor mount and re-dimensioned for ease of fit-up
133	472-3660M		Optional Lower Thoracic Spinebox Machining	N/A	NEW DRAWING

THOR-50M Drawing Revisions

August 2018

Page #	DWG/PART #	REV.	Description	Revision	Comments
134	472-3760	E	Pelvis/Lumbar Mounting Block Assembly	RE-DIMENSIONED; HOLE DIM. $\phi 6.8 +.15/-0.03$ THRU C'BORE $\phi 11.25 +.15/-0.03$ AS SHOWN IN SECTION B-B WAS $\phi 6.80$ THRU C'BORE $\phi 11.25$ 46.00; 4X $\phi 8.80 +.15/-0.03$ THRU C'SINK $\phi 18.2 \times 90^\circ$ WAS 4X $\phi 8.8$ THRU C'SINK $\phi 18.2 \times 90^\circ$ ; 2X $\phi 8.50 +0.15/-0.03$ 21.0 M10x1.5 x19.0; ADDED DOWEL PIN HOLES AND DETAIL C	Added holes for new tilt sensor mount, re-dimensioned for ease of fit
135	472-3746	B	Lumbar Spine Flex Joint Assembly	9003938 1/2 SAE FLAT WASHER TYPE-B ZINC WAS 9000135 WASHER FLAT 1/2 PTFE	The PTFE washer was compressing when tightening the cable nut so it was replaced with a steel washer
136	472-3740	B	Lumbar Spine Flex Joint Molded Assembly	ADDED NOTE #3	Added PERFORMANCE SPEC TAKES PRECEDENCE OVER DUROMETER
137	472-3742	E	Lumbar Spine Flex Joint Bottom Plate	RE-DIMENSIONED; HOLE DIM. 2X $\phi 15.1 +0.20/-0.03$ THRU C'BORE AS SHOWN WAS 2X $\phi 15.1$ THRU C'BORE AS SHOWN; DIM. 2X S $\phi 19.05 +0.20/-$	Re-dimensioned for ease of machining
138	472-3741	E	Lumbar Spine Flex Joint Top Plate	RE-DIMENSIONED; HOLE DIM. 2X $\phi 15.90 +0.20/-0.03$ THRU C'BORE $\phi 28.60 +0.25/-0.03$ 12.2 WAS 2X $\phi 15.9$ THRU C'BORE $\phi 28.6$ AS SHOWN	Re-dimensioned for ease of machining
143	472-3647	C	M12 Vinyl Nut Cover	IN NOTE 1, $\leq 40$ SHORE A WAS $65 \pm 5$ SHORE A	Changed to reflect part as purchased
144	472-3646	B	Upper Thoracic Spine Flex Joint Assembly	9003938 1/2 SAE FLAT WASHER TYPE-B ZINC WAS 9000135 WASHER FLAT 1/2 PTFE	The PTFE washer was compressing when tightening the cable nut so it was replaced with a steel washer
145	472-3640	B	Upper Thoracic Spine Flex Joint Molded Assembly	DIMENSION 63.5 $+0.6/-1.3$ WAS (63.5); ADDED NOTES 1 AND 2	Added tolerance to dimension and added performance specifications
146	472-3641	D	Upper Thoracic Spine Flex Joint Top Plate	RE-DIMENSIONED; $\phi 15.90 +0.15/-0.03$ WAS 15.9 AND 1.6 TYP. WAS 2X 1.5; REMOVED 4X R3.3; ADDED R1.5, $\phi 3.2$ BALL SLOT, 4.75, AND (3.2)	Re-dimensioned for ease of machining
N/A	472-3775-1 & 2	B	Tilt Sensor Assembly, T6, SA572-S113 & SA572-S44	N/A	DRAWING REMOVED FROM PACKAGE
N/A	472-3773	B	Tilt Sensor Mount, T6 SA572-S113 & SA572-S44	N/A	DRAWING REMOVED FROM PACKAGE
150	472-3783		Tilt Sensor Mount, Lower Thorax	N/A	NEW DRAWING
N/A	472-3776-1 & 2	B	Tilt Sensor Ass'y., T12, SA572-S113 & SA572-S44	N/A	DRAWING REMOVED FROM PACKAGE
N/A	472-3771	B	Tilt Sensor Mount T12, SA572-S44 & SA572-S113	N/A	DRAWING REMOVED FROM PACKAGE
151	472-3781		Tilt Sensor Mount, Lumbar Spine	N/A	NEW DRAWING
N/A	472-377-1 & 2	B	Tilt Sensor Ass'y., Pelvis, SA572-S113 & SA572-S44	N/A	DRAWING REMOVED FROM PACKAGE
N/A	472-3772	B	Tilt Sensor Mount Pelvis, SA572-S44 & SA572-S113	N/A	DRAWING REMOVED FROM PACKAGE
152	472-3787		Tilt Sensor Assembly, Pelvis	N/A	NEW DRAWING
153	472-3782		Tilt Sensor Mount, Pelvis	N/A	NEW DRAWING
154	472-3733	B	Thoracic Spine Load Cell Flex Joint Adaptor Plate Assembly	DIMENSION 4X 4.00 WAS 4X 3.5	Revised as built
155	472-3731	E	Thoracic Spine Load Cell Flex Joint Adaptor Plate	REMOVED DIMENSION 39.43; DIMENSION 2X 4.40 WAS 2X 4.00; ADDED DIMENSION 2X 4.40 LEFT SIDE VIEW; DIMENSIONS 4X 3.30 $+0.13/-0.03$ x 11.5 M4x0.7 6H x 8.0 WAS 4X 3.30 $+0.13/-0.03$ x 7.5 M4x0.7 6H x 7.5, ADDED HOLE NOTES 2X M2.5x0.45 x 5.0	Revised as built
157	472-4203	B	Tri-Pack Accel. Ass'y.	PART NUMBER SA572-S80M ENGRAVED ON TRI-PACK BLOCK WAS 472-4202	Corrected drawing to match part as made

**THOR-50M Drawing Revisions**

August 2018

Page #	DWG/PART #	REV.	Description	Revision	Comments
159	SA572-S4	G	Uniaxial Piezoresistive Accelerometer	DIMENSION .20/5.0 ++P.02/0.05 WAS .02/0.05 DIMENSION .152/3.86 DIA. REF. WAS .152/3.86 DIA. DIMENSION .10/2.54 ±.02/0.05 WAS .10/2.54 SENSITIVITY WAS .20 mV/g MIN. DAMPING RATIO WAS UNDAMPED (.005) NON-LINEARITY & HYSTERESIS WAS ±2% MAX. ZERO OFFSET WAS ±25 mV EXCITATION WAS 10V DC THERMAL SENSITIVITY SHIFT WAS THERMAL SENSITIVITY -5% Typ. AT 0° F TO 150° F ADDED THERMAL ZERO SHIFT TEMPERATURE EXPOSURE - OPERATING 0° F TO +150° F [-18° C TO +66° C] MASS ≤1.4 GRAM (WITHOUT CABLE) WAS WEIGHT 1 gram (WITHOUT CABLE)	Updated Specifications to current instrumentation
160	472-3857	A	T1 Accel. Mount Assembly	REVISED ITEM #1 PART #472-3858 - T1 ACCEL MOUNT	Added dowel pin holes to T1 Accel. Mount
161	472-3858	A	T1 Accel Mount	ADDED HOLES 2X Ø1.55 +.01/- .00 √6.0 (S.F. FOR Ø1.5mm DOWEL) DIMENSION 14.4 WAS 14.50, 3.6 WAS 4.00, 22.00 WAS 21.90; 4.40 WAS 5.00, 14.00 WAS 13.90, 2.90 WAS 2.95, 5.20 WAS 5.10; ADDED DIMENSION 7.6; HOLE DIMENSION Ø3.70 +.13/- .03 THRU □ Ø6.50 √7.1 WAS DIMENSION Ø3.60 THRU □ Ø6.50 √7.1, 2X M1.4x0.3 √2.8 WAS 2X M1.4x0.3 √3.8, AND 2X Ø1.55 +.01/- .00 √4.00 (S.F. FOR Ø1.5MM DOWEL) WAS 2X Ø1.55 +.01/- .00 √6.00 (S.F. FOR Ø1.5MM DOWEL)	
194	472-3813-1	C	Shoulder Support Assembly, LH	ITEM #5 PART NUMBER WAS 5001168V AND ITEM #11 PART NUMBER WAS 5001169V	Clerical Update
N/A	472-3778		Lower Neck Tilt Sensor Ass'y.	N/A	DRAWING REMOVED FROM PACKAGE
N/A	472-3635	B	Lower Neck Tilt Sensor Mount	N/A	DRAWING REMOVED FROM PACKAGE
N/A	SA572-S113	A	Tilt Sensor, Dual Axis	N/A	DRAWING REMOVED FROM PACKAGE
212	472-3831	B	Arm Clevis Assembly	ITEM #9 PART NUMBER WAS 5001166V, ITEM #10 PART NUMBER WAS 5001167V, & ITEM #12 PART NUMBER WAS 5001177V	
213	472-3832	C	Arm Clevis	HOLE DIMENSION Ø10.0 THRU TO SLOT C'BORE Ø21.0 x 1.0 WAS Ø10.0 THRU TO SLOT C'BORE Ø21.0 x 1.5	Decreased counterbore to increase the clamping ability of the shoulder clevis
221	472-3841	C	Right Shoulder Pivot Assembly	ITEM #15 PART NUMBER WAS 5001165V	
223	472-3813-2	C	Shoulder Support Assembly, RH	ITEM #5 PART NUMBER WAS 5001168V, AND ITEM #11 PART NUMBER WAS 5001169V	
246	472-3400	E	Thorax Bib Assembly	REVISED ITEM #1, 472-3410 - MID-STERNUM BONDING ASSEMBLY	Added sternum mass straps to the Mid-Sternum Mass
247	472-3410	B	Mid-Sternum Bonding Assembly	ADDED ITEM 6, 7, 8, & 9; ADDED NOTE #2; ITEM #3 PART NUMBER WAS 473-3414	Added sternum mass straps
252	472-3415	B	Mid-Sternum Rubber Pad	ADDED Ø4.0 THRU HOLES	Added holes to accommodate for sternum mass straps
		C		DIMENSION Ø4.0 THRU WAS Ø4.0 +/- .05 THRU	Dimensional clerical correction
253	472-3411-A		Mid-Sternum Mass #2	N/A	NEW DRAWING
254	472-3431		Sternum Mass Strap	N/A	NEW DRAWING
		A		DIMENSION 12.7 ±.50 WAS 12.7 ±.05 AND 6.35 ±.50 WAS 6.35 ±.05	Dimensional clerical correction
260	472-3115		Bracket, Lift Strap	N/A	NEW DRAWING
261	472-3517	C	Dummy Lifting Strap	COMPLETELY NEW STRAP DESIGN	Redesigned strap to help alleviate fraying
262	472-3520	C	IRTRACC Connecting Bolt, Lower Thorax	ADDED HEX SOCKET HOLE AND SHOULDER; DIM. 14.3 +0.0/-0.1 WAS (17.0)	Redesigned for better fit with Bib and IRTRACC

**THOR-50M Drawing Revisions**

August 2018

Page #	DWG/PART #	REV.	Description	Revision	Comments
263	472-4600	D	Upper Abdomen Assembly	MOVED ACCELEROMETER MOUNT PLATE 472-4626 OUTSIDE OF UPPER ABDOMEN BAG GROMMET ASSEMBLY 472-4627	Moved ACCELEROMETER MOUNT PLATE to actual location it is installed
269	472-4621	B	Internal Foam Rear Layer	IN NOTE #2 "QUALIFICATION" WAS "CERTIFICATION"	Clerical correction
270	472-4622	C	Internal Foam Middle Layer	UPDATED MATERIAL SPECIFICATION; IN NOTES "QUALIFICATION" WAS "CERTIFICATION"; DIMENSION 49 +/- WAS 51	Changed Material specifications to meet qualification procedures
271	472-4623	C	Internal Foam Front Layer	IN NOTE 4 "QUALIFICATION" WAS "CERTIFICATION"	Clerical correction
283	472-3550	F	IRTRACC Assembly, Upper Left	REVISED ITEM #1 - 472-3551 - UPPER IRTRACC BASE, & ITEM #9 - SA572-S117 - IRTRACC CHEST	Added holes to UPPER IRTRACC BASE for cable strain relief; redesigned IRTRACC U-Joint
284	472-3551	C	Upper IRTRACC Base	ADDED 2X Ø2.4 THRU AND HOLE Ø2.55 +.01/-0.00 ∇6.00	Added holes for cable strain relief and second dowel pin hole
		D		DIMENSION Ø6.35 +.00/-0.02 THRU WAS Ø6.35 +.00/+0.02 THRU AND 2X Ø2.55 +.01/-0.00 ∇6.00 WAS 2X Ø2.55 +.10/-0.00 ∇6.00	Revised to match part as fabricated
289	SA572-S117	C	IRTRACC Chest	DIMENSION 152.1 WAS 153.2, 10.0 WAS 12.1, Ø9.4 WAS Ø9.5, AND (165) WAS (166); UNIVERSAL JOINT ASSEMBLY 472-8110 WAS UNIVERSAL JOINT MODIFIED 472-8115	Redesigned U-Joint for ease of machining
290	472-8110		Universal Joint Assembly	N/A	NEW DRAWING
291	472-8213		Ball Joint Bushing	N/A	NEW DRAWING
292	472-8214		Universal Joint, Modified	N/A	NEW DRAWING
		A		IN NOTE 1 #9002659V WAS #90002659V	Clerical Correction (Typo)
293	472-3560	F	IRTRACC Assembly, Upper Right	REVISED ITEM #1 - 472-3551 - UPPER IRTRACC BASE, & ITEM #8 - SA572-S117 - IRTRACC CHEST	Added holes to UPPER IRTRACC BASE for cable strain relief; redesigned IRTRACC U-Joint
295	472-3570	F	IRTRACC Assembly, Lower Right	REVISED ITEM #1 - 472-3571 - LOWER IRTRACC BASE, & ITEM #9 - SA572-S114 - IRTRACC CHEST	Added holes to UPPER IRTRACC BASE for cable strain relief; redesigned IRTRACC U-Joint
296	472-3571	E	Lower IRTRACC Base	DIMENSION Ø6.35 +.00/-0.02 THRU WAS Ø6.35 +.00/+0.02 THRU; DIMENSION 2X Ø2.55 +.01/-0.00 ∇6.0 WAS 2X Ø2.55 +.10/-0.00 ∇6.0	Dimensional correction
297	472-3580	F	IRTRACC Assembly, Lower Left	REVISED ITEM #1 - 472-3571 - LOWER IRTRACC BASE, & ITEM #9 - SA572-S117 - IRTRACC CHEST	Added holes to UPPER IRTRACC BASE for cable strain relief; redesigned IRTRACC U-Joint
298	472-4700	H	Lower Abdomen Mechanical Ass'y.	QTY. FOR ITEM #7, 5001103 WAS 12	Change Qty. of fasteners do to pinning of IRTRACC's for more accurate fit
303	472-4720-1	C	Attach Bracket Weld Ass'y., Left	REMOVED NOTCH FROM PART #472-4721 - DGSP MOUNT AND ADDED ITEM #5 - 5000869 - PIN, DOWEL M2.5 x 8 LG.	Removed notch to work with new Iliac wing design. Added dowels pins for IRTRACC alignment
304	472-4721	C	DGSP Mount	RE-DIMENSIONED; REMOVED NOTCH IN LOWER LEFT CORNER; 4X Ø3.40 +.13/-0.03 THRU WAS 6X Ø3.40 +.13/-0.03 THRU: ADDED 2X Ø2.500 +.000/-0.013 THRU (P.F. DOWEL)	Removed notch to work with new Iliac wing design. Change the two (2) center Ø3.40 holes to Ø2.500 +.000/-0.013 dowel pin holes
		D		DIMENSION 2X 60.50 WAS 2X 60.05, 20.40 +.20/-0.00 WAS 20.10 +.20/-0.00, & 17.8 WAS 18.0	Revised to match part as fabricated
308	472-4720-2	C	Attach Bracket Weld Ass'y. Right	RE-DIMENSIONED; REMOVED NOTCH IN LOWER LEFT CORNER; 4X Ø3.40 +.13/-0.03 THRU WAS 6X Ø3.40 +.13/-0.03 THRU: ADDED 2X Ø2.55 +.01/-0.00 THRU	Removed notch to work with new Iliac wing design, added dowel pin holes to better align IRTRACC
316	472-4740-1	B	Pivot Assembly, Left	ITEM #8 QTY. WAS 12; ADDED ITEM #12	Changed screw size to match part as fabricated
317	472-4741	D	Block Mounting	CORRECTED DIMENSION 12.500 +.07/-0.00 ∇7.00 ORIGINS AND DIMENSION WAS 13.000 +.000/-0.025 ∇7.00; HOLE DIMENSION Ø8.000 +.02/-0.00 REAM THRU (P.F. FOR BUSHING) WAS Ø8.000 +.000/+0.015 REAM THRU (P.F. FOR BUSHING); HOLE DIMENSION Ø2.55 +.01/-0.00 ∇4.5 WAS Ø2.55 +.01/-0.00 ∇6.0	Dimensional clerical correction

**THOR-50M Drawing Revisions**

August 2018

Page #	DWG/PART #	REV.	Description	Revision	Comments
318	472-4742	C	Cover	HOLE DIMENSION 4X Ø3.00 THRU □ □ Ø4.75 x √ 2.50 WAS 4X Ø2.40 THRU □ □ Ø4.40 x √ 2.20	Changed screw size to match part as fabricated
		D		HOLE DIMENSION Ø8.000 +.015/- .000 REAM THRU (P.F. FOR BUSHING) WAS Ø8.000 +.000/+.015 REAM THRU (P.F. FOR BUSHING), AND 4X Ø2.40 +.10/- .03 THRU □ □ Ø4.40 +.10/- .03 √ 2.20 WAS 4X Ø3.00 THRU □ □ Ø4.75 √ 2.50	Dimensional correction & Tolerance update
324	472-4740-2	B	Pivot Assembly, Right	ITEM #8 QTY. WAS 12; ADDED ITEM #12	Changed screw size to match part as fabricated
326	472-4761	C	Rear Attachment Plate	DIMENSION 37.4 WAS 38.0; RE-DIMENSIONED FROM TOP OF PLATE; HOLE DIM. 2X Ø10.80 +0.15/-0.03 THRU C'SINK Ø22.7 X 90° WAS 2X Ø10.8 +0.15/-0.03 THRU C'SINK Ø22.7 X 90°, 4X Ø6.8 +0.15/-0.03 THRU WAS 5X Ø6.8 THRU, Ø5.00 +0.13/-0.03 THRU M6x1 -6H THRU WAS M6x1 - 6H DEPTH 10.0	Shortened plate to lessen the likely hood of contacting the Iliac Wings, dimension from top of plate for ease of machining
		D	Rear Attachment Plate	DIMENSION 12.0 WAS 12.6	Dimension revised to allow for more clearance
328	472-4764	B	Lower Abdomen Front Foam Layer	IN NOTE #2 "QUALIFICATION" WAS "CERTIFICATION"	Clerical correction
329	472-4765	B	Lower Abdomen Rear Foam Layer	HOLE DIM. 4X Ø13 DEPTH AS SHOWN WAS 4X Ø13 DEPTH 12.5; DIMENSION (50) WAS 50, (10) WAS 10, (46) WAS 46, 101.5 WAS 102, 49 +/- 1.0 WAS 51, ADDED DIM. 35.5 +/- .2, REMOVED 70 DIM.; REVISED MATERIAL NOTE; ADDED DIMENSIONS SYMMETRIC NOTE AND DIMENSION TOLERANCE NOTE.	Re-Dimensioned for ease of fabrication
331	472-4763-1	C	Lower Abdomen Top/Side/Rear Pattern	REVISED NOTE 2; ADDED LABELS TO PATTERN, I.E. TOP, BOTTOM, REAR, RIGHT, & LEFT: DIMENSION 2X Ø57 THRU WAS 2X Ø64 THRU; ADDED NEXT ASSEMBLY	Re-Dimensioned and labeled for ease of fabrication
332	472-4763-2	C	Lower Abdomen Bottom Bag Pattern	ADDED NEXT ASSEMBLY	Added for ease of bag assembly
333	472-4763-3	C	Lower Abdomen Top Pocket Pattern	ADDED NEXT ASSEMBLY	Added for ease of bag assembly
334	472-4763-4	D	Lower Abdomen Front Pattern	DIMENSION 46 WAS 54; REVISED NOTE 2; ADDED TOP & BOTTOM LABELS TO PATTERN; ADDED NEXT ASSEMBLY	Added for ease of bag assembly
335	472-4763-5	B	Lower Abdomen Zipper	DIMENSION 475 WAS 406; ADDED STITCH LINES; ADDED NEXT ASSEMBLY	Changed to match as fabricated
336	472-4763-6	C	Lower Abdomen Stiffening Cloth	DIMENSION 46 WAS 54; ADDED TOP & BOTTOM LABELS TO PATTERN; ADDED NOTE 4 AND NEXT ASSEMBLY	Changed for ease of fabrication and to match part as fabricated
337	472-4763-7	C	Lower Abdomen Outside Velcro Patch	DIMENSION 46 WAS 54; REVISED NOTE 2; ADDED NEXT ASSEMBLY	Changed for ease of fabrication and to match part as fabricated
340	472-4000	F	Pelvis Assembly	ADDED C.G. VIEW AND NOTES 2 & 3; WEIGHT WAS 10.60; ADDED ITEM #44, 45, & 46	
		G		ITEM #29 QTY. WAS 12; ITEM #33 QTY. WAS 9; ITEM #37 QTY. WAS 4; ITEM #44 WAS PART #9010566V DESCRIPTION - SCREW, SHCS M6 x 22 LOW PROFILE, ITEM #6 WAS PART #5000084 DESCRIPTION - SCREW, FHCS M5x0.8 x 10; ADDED ITEM #47 - QTY. 4 - PART #5000285 - DESCRIPTION: SCREW, FHCS M6x1 x 18	Changed screw lengths to provide for better fit
341 & 342	472-4211	C	Pelvis Base Module	RE-DIMENSIONED; REMOVED MATERIAL (CENTER VIEW) TO REMOVE WEIGHT; MATERIAL WAS 1018 STEEL	Removed Material to remove weight with redesign of Iliac Wings
345	472-4350	B	Pelvis Coccyx	ITEM #1 PART NUMBER WAS 5000570	Clerical correction
347	472-4380-2	E	Right Iliac Assembly	REVISED ITEM #1, 472-4381, PELVIS H-PT. TOOL BEARING & ITEM #2, 472-4382-2, PELVIS WING MACHINING (RIGHT); REMOVED	Redesigned to add strength
348	472-4381	C	Pelvis H-Pt. Tool Bearing	REDESIGNED TO ACCOMMODATE NEW RECTANGULAR H-POINT TOOL DESIGN; DIM. Ø17.48 +0.01/-0.00 WAS Ø17.48 +0.02/-0.00, 6.81 WAS 2X 6.81 +/-0.05, R1.52 WAS R1.5	Redesigned to accommodate new rectangular H-Point Tool

THOR-50M Drawing Revisions

August 2018

Page #	DWG/PART #	REV.	Description	Revision	Comments
349	472-4382-2	D	Iliac Wing Right	RE-DIMENSIONED, REMOVED Ø28.00 THRU HOLE, REDESIGNED TO ADD MATERIAL TO STRENGTHEN, REROUTED CABLE SLOT; REMOVED DETAIL A	Re-Designed and adding material to strengthen
		E		HOLE DIMENSION 3X Ø6.00 +00/-0.01 REAM ∇12.7 PRESS FIT FOR 6mm DOWEL WAS 3X Ø6.000 +000/-0.001 REAM ∇12.7 PRESS FIT FOR 6mm DOWEL, Ø6.4 +0.15/-0.03 THRU √ Ø13.7 x 90° WAS Ø6.4 +0.15/+0.03 THRU √ Ø13.7 x 90°; ADDED HOLE NOTE Ø6.40 +0.15/-0.03 THRU	Updated Iliac Wings to new design, added material to strengthen
350	472-4380-1	E	Left Iliac Assembly	REVISED ITEM #1, 472-4382-1, PELVIS WING MACHINING (LEFT) & ITEM #2, 472-4381, PELVIS H-PT. TOOL BEARING; REMOVED DETAIL A.	Re-Designed adding material to strengthen
351	472-4382-1	E	Pelvis Wing Machining (Left)	RE-DIMENSIONED, REMOVED Ø28.00 THRU HOLE, REDESIGNED TO ADD MATERIAL TO STRENGTHEN, REROUTE CABLE SLOT; REMOVED DETAIL A	Re-Designed and adding material to strengthen
		F	Iliac Wing, Left	DRAWING TITLE WAS PELVIS WING MACHINING (LEFT); HOLE NOTE Ø6.40 +.15/-0.03 THRU √ Ø13.7 x 90° WAS Ø6.40 THRU √ Ø13.70 x 90°, AND 3X Ø6.00 +0.00/-0.01 REAM ∇ 12.7 PRESS FIT FOR 6mm DOWEL WAS 3X Ø6.000 +0.000/-0.010 REAM ∇ 12.7 PRESS FIT FOR 6mm DOWEL	Revised hole dimensions for better fit
353	472-4375	A	S.R. Thor A.S.I.S.	REVISED ITEM #1 - 472-4376 - S.R. THOR A.S.I.S. - BACK AND ITEM #2 - 472-4377 - S.R. THOR A.S.I.S. - FRONT	Increased corner radii to lessen the likelihood of damage to pelvis skin
354	472-4376	A	S.R. Thor A.S.I.S. - Back	RE-DIMENSIONED; DIM. 56.34 WAS <u>56.34</u> , 38.56 WAS <u>38.56</u> , 10.16 WAS <u>10.16</u> , 5.08 WAS <u>5.08</u> , 22.86 WAS <u>22.86</u> , 21.58 WAS 22.77, 20.56 WAS 20.81, 63.723 TO S.C. WAS 63.363 TO S.C., 46.18 WAS <u>46.18</u> , 15.24 AS <u>15.24</u> 2X R6.0 TO R1.5 (EXACT DIMENSIONS FROM CAD) WAS R1.5 TYP.	Increased corner radii for smoother interaction with Lower Abdomen Bag
355	472-4377	A	S.R. Thor A.S.I.S. - Front	RE-DIMENSIONED; ADDED 2X R6.0 TO R1.5 (EXACT DIMENSIONS FROM CAD); DIM. 2X R6.0 TYP. WAS R1.5 TYP., 9.51 WAS 13.16, R6.00 WAS R2.49, 32.61 WAS 32.91, 29.74 WAS 30.81, 21.58 WAS 22.77, 20.56 WAS 20.81, 63.721 TO S.C. WAS 63.363 TO S.C., 2.50 WAS 2.54, 4.00 WAS 7.11, 56.34 WAS <u>56.34</u> , 46.18 WAS <u>46.18</u> , 15.24 WAS <u>15.24</u> , 5.08 WAS <u>5.08</u> , 10.16 WAS <u>10.16</u> , & (9.38) WAS (9.20)	Increased corner radii for smoother interaction with Lower Abdomen Bag
369	472-4100	B	Pelvis Flesh, Molded	REMOVED FLAP OVER THE LEFT & RIGHT D-PT CAVITIES	Removed flap to allow the Pelvis bone assembly to seat better
		C		ADDED FLAP OVER LEFT & RIGHT D-PT CAVITY BACK	Reversed previous revision
378	472-4325-1	C	Pelvis Load Cell Mtg. Plate Left	ADDED DIMENSIONS TO VIEW A-A	Missing tapped hole dimensions added
421	472-5503-1	B	Thigh Flesh - Left	REVISED NOTES; ADDED REFERENCE DIMENSIONS AND ITEM #1 - 472-5504 THIGH FLESH ZIPPER ASSEMBLY; ADDED NOTCH FOR INSTRUMENTATION CABLE CLEARANCE	Change material specification to match part as manufactured
422	472-5504		Thigh Flesh Zipper Assembly	N/A	NEW DRAWING
423	472-5502	B	Knee Flesh Left/Right	DIMENSIONS (60.3) WAS 60.3 AND (Ø16.00) THRU TYP. WAS Ø16.00 THRU TYP.; ADDED DIMENSIONS (44), (173), & (168); ADD SECTION A-A; REVISED NOTES	Better defined part
--	78051-5-L.H. 78051-6-R.H.	E	Knee Flesh & Skin Ass'y. - Molded - Hybrid III	N/A	DRAWING REMOVED FROM PACKAGE
430	472-5503-2	B	Thigh Flesh - Right	REVISED NOTES; ADDED REFERENCE DIMENSIONS AND ITEM #1 - 472-5504 THIGH FLESH ZIPPER ASSEMBLY; ADDED NOTCH FOR INSTRUMENTATION CABLE CLEARANCE	Change material specification to match part as manufactured & added notch for instrumentation cable clearance
432	472-6200	B	Upper Humerus Assembly	ADDED C.G. DIMENSIONS AND NOTES; ITEM #7 PART NUMBER WAS 5001176V	



THOR-50M Drawing Revisions

August 2018

Page #	DWG/PART #	REV.	Description	Revision	Comments
458	472-6900-1	B	Hand Asm. Molded, Left	ADDED C.G. DIMENSIONS; REVISED NOTE 2 AND ADDED NOTE 3	
		C		REORIENTED STRUCTURAL ASM., HAND 472-6910 AND CAVITY IN HAND FLESH MODEL.	Corrected model to match part as fabricated
464	472-6900-2	B	Hand Asm. Molded, Right	ADDED C.G. DIMENSIONS; REVISED NOTE 2 AND ADDED NOTE 3	
465	472-7000-1	D	Lower Leg Assembly, Complete - Left	ADDED ITEM #12, SA572-S4 UNIAXIAL PIEZORESISTIVE ACCELEROMETER AND ITEM #13, 9010407 SCREW, SHCS M1.4x0.3 x 3; ADDED EXPLODED VIEW AND MOVED BALLOON CALLOUTS TO EXPLODED VIEW	Added accelerometers to assembly
		E		ITEM #9 WAS PART #9003042 - SCREW, BHCS M5 x 10	Shortened screw to lessen the likelihood of damage to the lower leg skin
466	472-7300	C	Lower Leg Mechanical Assembly	ITEM #11 PART #9010109V DESCRIPTION SCREW, SSFP M3 x 0.5 x 3 WAS PART #9010447 DESCRIPTION SCREW, SHCS M3 x 0.5 x 3	Corrected part number and part description
468	472-7311	E	Lower tibia Tube		
486	472-7335	E	Plunger Retaining Bolt	ADDED, (PART #9005101), MODIFY AS SHOWN, TO NOTE	Added part number
489	472-7500-1	G	Ankle Assembly, Left	CORRECTED ITEM NUMBERS IN BOM, ITEM #21 WAS SKIPPED; CORRECTED DESCRIPTION OF ITEM #23 PART #5000103, WAS *Varies* AND QTY. WAS 11; ADDED ITEM #34 PART 5000410	Clerical corrections
490	472-7510	F	Ankle Center Block Ass'y.	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
491	472-7511	F	Center Block, Ankle	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
492	472-7512	F	Torque Shaft, Upper	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
493	472-7513	F	Torque Shaft, Lower	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
494	472-7515	D	Retaining Washer	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
495	472-7522	E	Cap, Base Torque	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
496	472-7523	G	Base, Torque - Bottom	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
497	472-7524	E	Torque Cylinder	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
498	472-7530	B	Stop Assembly - Dorsi	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
500	472-7532	C	Front Stop, Soft-Dorsi/Plantar	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
501	472-7540	C	Ankle Bushing Plate Assembly - Free End	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
502	472-7543	E	Bushing Plate, Free End	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
503	472-7542	E	Bushing, Ankle	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
504	472-7560	B	Bracket, Achilles Pulley	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
507	9000508	A	Achilles Washer	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
508	472-7562	D	Pulley, Achilles Cable	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
509	472-7533	B	Stop Assembly - Eversion	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
511	472-7536	D	Stop, Eversion	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
512	472-7534	B	Stop Assembly - Inversion	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
513	472-7537	D	Stop, Inversion	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
514	472-7563	E	Bolt & Sleeve Assembly	IN TITLE BLOCK THOR-50M WAS THOR-M	Correct dummy title
546	472-7370-1	A	Lower Leg Flesh Ass'y., Left	COMPLETELY REVISED INTERNAL CAVITY; ADDED ZIPPER ASSEMBLY (472-4475), VELCRO HOOK (8004627), & VELCRO SHEET LOOP (8004650); ADDED NOTES AND PARTS LIST	Completely redesigned the internal cavity
547	472-5580-1		Lower Leg Flesh, Left	NA	NEW DRAWING
548	472-7000-2	D	Lower Leg Assembly, Complete - Right	ADDED ITEM #12, SA572-S4 UNIAXIAL PIEZORESISTIVE ACCELEROMETER AND ITEM #13, 9010407 SCREW, SHCS M1.4x0.3 x 3; ADDED EXPLODED VIEW AND MOVED BALLOON CALLOUTS TO EXPLODED VIEW	Added accelerometers to assembly
		E		ITEM #9 WAS PART #9003042 - SCREW, BHCS M5 x 10	Shortened screw to lessen the likelihood of damage to the lower leg skin

**THOR-50M Drawing Revisions**

August 2018

Page #	DWG/PART #	REV.	Description	Revision	Comments
549	472-7500-2	G	Ankle Assembly, Right	CORRECTED ITEM NUMBERS IN BOM, ITEM #21 WAS SKIPPED; CORRECTED DESCRIPTION OF ITEM #23 PART #5000103, WAS *Varies* AND QTY. WAS 11; ADDED ITEM #34 PART 5000410	Clerical corrections
555	472-7370-2	A	Lower Leg Flesh Ass'y., Right	COMPLETELY REVISED INTERNAL CAVITY; ADDED ZIPPER ASSEMBLY (472-4475), VELCRO HOOK (8004627), & VELCRO SHEET LOOP (8004650); ADDED NOTES AND PARTS LIST	Completely redesigned the internal cavity
556	472-5580-2		Lower Leg Flesh, Right	NA	NEW DRAWING
557	472-3900	C	Front/Rear Panel Assembly, Jacket	REVISED ITEM #1 472-3910 - FRONT PANEL ASSEMBLY, JACKET	Revised for better fit
558	472-3910	E	Front Panel Assembly, Jacket	DIMENSION 2X 148 WAS 2X 158; ADDED DIMENSION 1167; ADDED "EXCEPT ARM PIT AREA; THIS IS TO BE TRIMMED WITH 25mm WIDE ELASTIC SEAM TAPE." TO NOTE 8; NOTE 10 WAS "SEW VELCRO FLAPS AS NOTED"; ADDED NOTES 12, 13, & 14	Revised for better fit
		F		REMOVED NOTE 14; DIMENSION (1167) WAS 1167 SEE NOTE 14	Revised for better fit
559	472-3911	D	Front Inside Panel Pattern (Neoprene)	DIMENSION (578) WAS 578, 98 WAS 97; REVISED SIDE SLOT	Revised for better fit
560	472-3927	C	Front Interior Shoulder Patch	DIMENSION 153 WAS 137, 126 WAS 110' 118 WAS 101, & 10° WAS 11°	Revised for better fit
608	SA572-S128	A	Acetabulum Load Cell Ass'y., Left	REMOVED (RIGHT SIDE ONLY) FROM POLARITY SPECIFICATION	Revised As Manufactured
611	SA572-S129	A	Acetabulum Load Cell Ass'y., Left	REMOVED (RIGHT SIDE ONLY) FROM POLARITY SPECIFICATION	Revised As Manufactured
622	472-9510	A	Thorax Mechanical Assembly IRTTRACC Offset	DIMENSION 15.5 [0.61] WAS 15.4 [0.61]	Changed to match PADI
636	472-8510-A		H-Point Tool, Assembly	N/A	NEW DRAWING
637	472-8511-A		H-Point Tool, Expander	N/A	NEW DRAWING
		A		DIMENSION 9.28 ±0.05 SEE NOTE 1 WAS 9.28 ±0.02 SEE NOTE 1, ϕ2.00 THRU WAS ϕ2.000 THRU; ADDED DIMENSION 4X .7 x 45° CHAMFER	
638	472-8512-A		H-Point Tool, Plate	N/A	NEW DRAWING
		A		ADDED SECTION A-A AND DIMENSION 0.5 x 45° CHAMFER TYP. ALL AROUND	
639	472-8515-A		H-Point Tool, Pin Assembly	N/A	NEW DRAWING
640	472-8513-A		H-Point Tool, Pin	N/A	NEW DRAWING
641	472-8514-A		H-Point Tool, Endcap	N/A	NEW DRAWING
642	472-8516-A		H-Point Tool, Pin	N/A	
643	472-8320		Lower Abdomen Bag Inspection Mandrel Ass'y.	N/A	NEW DRAWING
		A		UPDATED LOWER ABDOMEN BAG INSPECTION PROCEDURE	
644	472-8321		Lower Abdomen Bag Inspection Mandrel		NEW DRAWING
		A		DIM. 2X ϕ60 I.D. WAS 2X ϕ65 AND 2X ϕ49 O.D. WAS 2X ϕ49	
645	472-8300		Optional - Lower Abdomen Bag Mandrel and Punch Ass'y.	N/A	NEW DRAWING
646	472-8309		Optional - Lower Abdomen Foam Mandrel Ass'y.	N/A	NEW DRAWING
647	472-8310		Optional - Lower Abdomen Foam, Mandrel	N/A	NEW DRAWING
648	472-8354		Optional - Abdomen Large Hole Cutting Guide	N/A	NEW DRAWING
649	472-8356		Optional - Abdomen Large Hole Cut Fixture Assembly	N/A	NEW DRAWING
650	472-8357		Optional - Large Hole Cut Fixture Block Ass'y.	N/A	NEW DRAWING
651	472-8350		Optional - Lower Abdomen Bag Punch - Ass'y.	N/A	NEW DRAWING
652	472-8351		Optional - Lower Abdomen Bag Punch - Base Plate	N/A	NEW DRAWING
653	472-8352		Optional - Lower Abdomen Bag Punch - Rod	N/A	NEW DRAWING
654	472-8355		Optional - Front Hole Pilot Knife	N/A	NEW DRAWING
655	472-8353		Optional - Lower Abdomen Bag Punch - Punch	N/A	NEW DRAWING
656	DL472-9009		Pelvis Standoff Ass'y.	N/A	NEW DRAWING
657	DI472-9010		Pelvis Standoff Block	N/A	NEW DRAWING

**THOR-50M Drawing Revisions**  
August 2018

Page #	DWG/PART #	REV.	Description	Revision	Comments
659	DL472-1000	C	Neck Twist Fixture	ITEM #12 PART NUMBER WAS 5000292V	
667	DL472-1160	C	Neck Twist Fixture Pendulum Ass'y.	ITEM #4 PART NUMBER WAS 5000472V	
684	TLX-9000-007	D	Test Fixture - Pendulum Arm	MATERIAL WAS MILD STEEL	Corrected Material Specification to As Built
704	TLX-9000-015	C	Test Fixture - Dynamic Inversion/Eversion Bracket	HOLE NOTE 4X REAM Ø6.8 THRU [4X REAM Ø0.27 THRU] WAS (4X Ø6.8 THRU [4x RERAM Ø0.27 THRU])	Revised for improved machinability
705	TLX-9000-025	A	Inversion/Eversion Bracket, Attachment Bar	HOLES NOTE (4X REAM Ø6.8 THRU [4X REAM Ø0.27 THRU]) DRILL AFTER ASSEMBLY, SEE DRAWING TLX-9000-015 WAS 4X Ø6.8 THRU Ø0.27 THRU]	Revised for improved machinability
726	TF-472-6000	A	Thor 3D IRTRACC Set Up Fixture	REVISED ABDOMEN IRTRACC SPACER BLOCK AND UPPER THORAX IRTRACC SPACER BLOCK	Revised spacer blocks to accommodate the alignment pins in the Upper & Lower Thorax IRTRACCs and the Lower Abdomen IRTRACCs