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Appendix 1

**PROGRESS CARGO VEHICLE
TRANSFER OPERATIONS
TKF.251**

PROGRESS ГрО

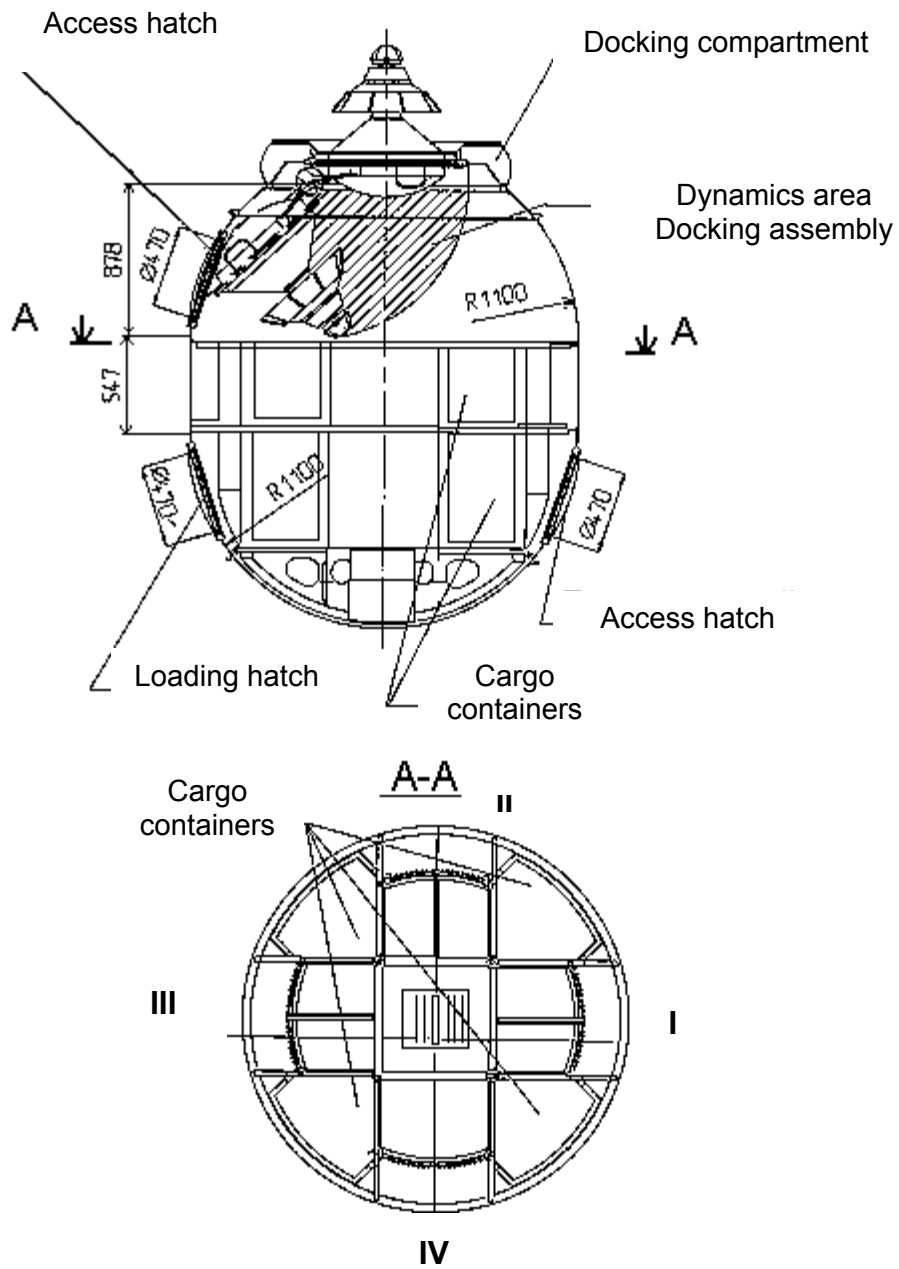


Figure 1

Areas and Containers for Cargo Location in Progress

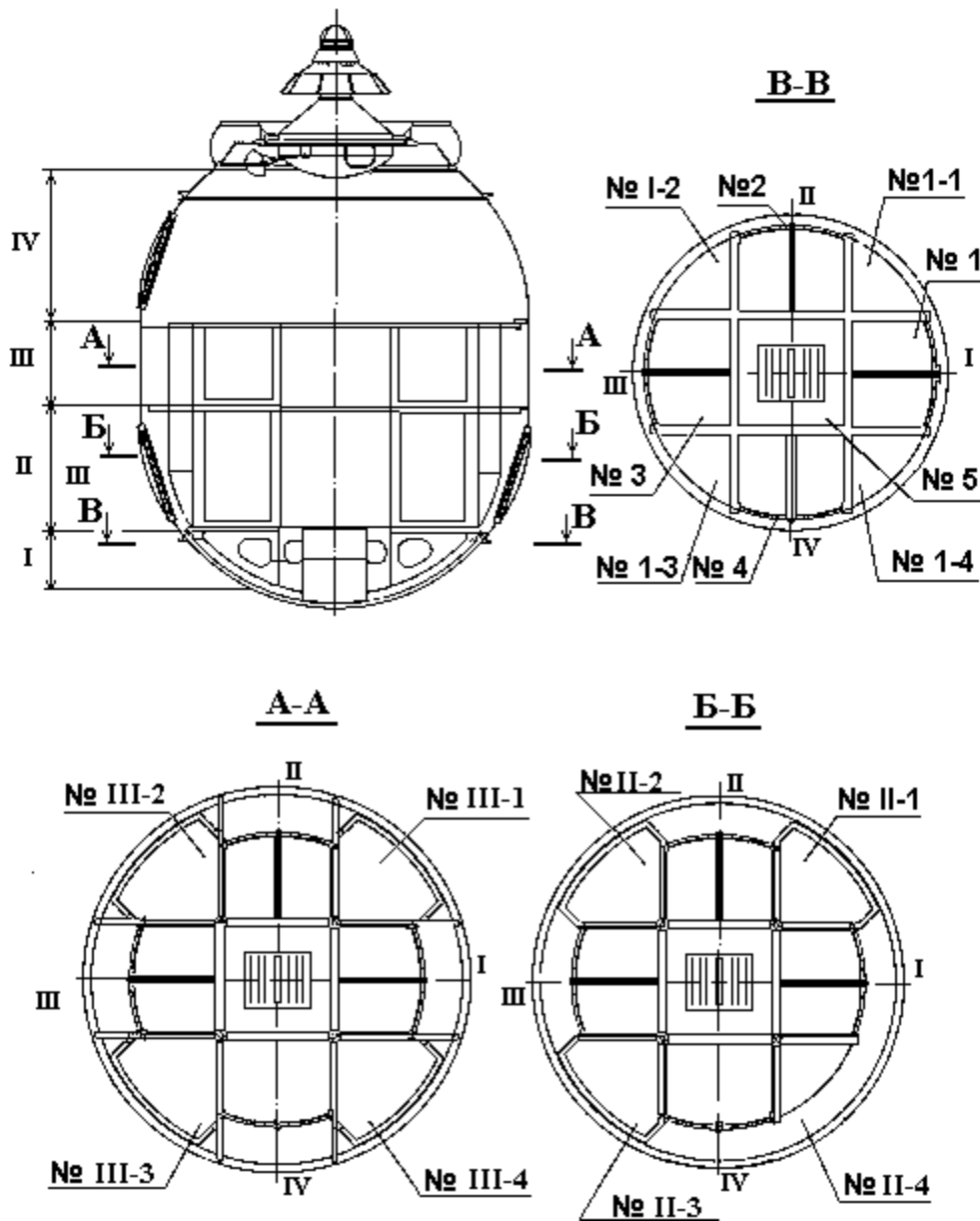
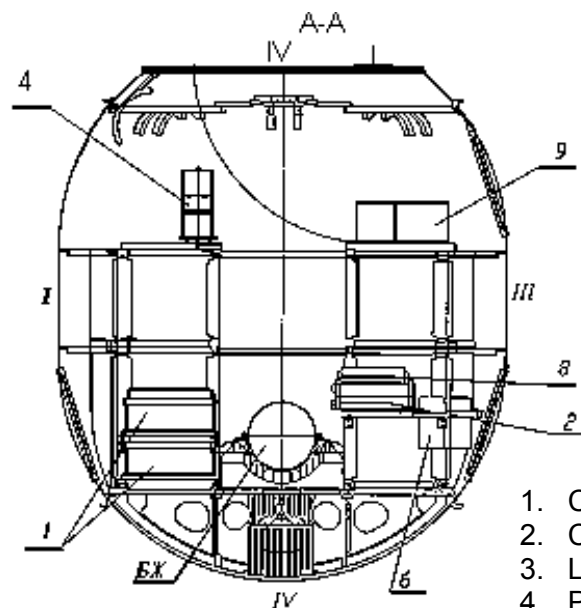
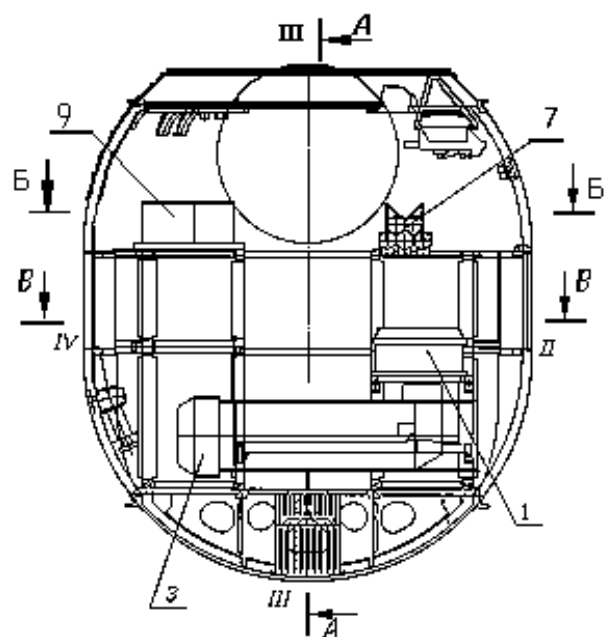
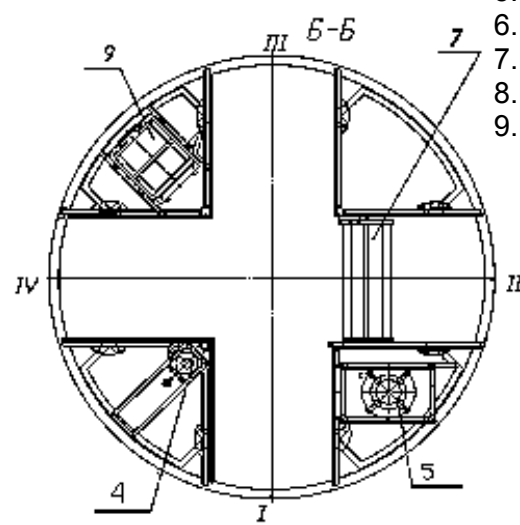
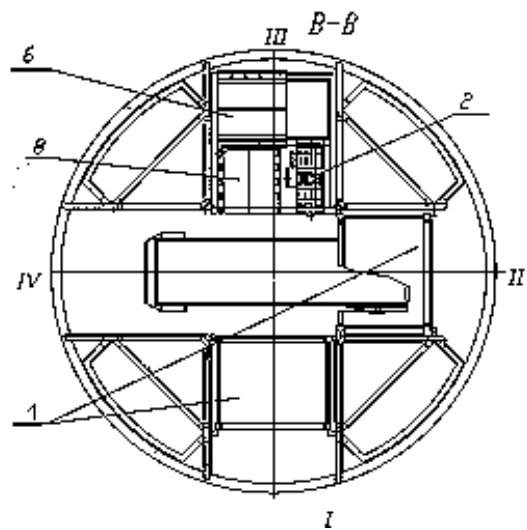


Figure 2



1. Cassette Container (three)
2. Compressor MP5-15Г
3. Liquid Unit (БЖ)
4. Pretreat Tank (E-K)
5. БПА-1М Unit
6. Current Stabilizer CT-64
7. Purification Column Unit (БКО)
8. Central Post Computer (КЦП)
9. TV Color Display (ИТ-Ц)



CARGO ITEMS LOCATION DIAGRAM

Progress #251 utilizes two cargo stowage methods:

1st – using bolt fasteners (bolt locks – to release $\approx 90^\circ$, custom bolts). Used to secure the items weighing more than 10 kg (as a rule).

2nd – using containers (or in bags subsequently stowed in containers).

To expedite Progress #251 unloading, it is suggested to:

1. Deinstall the hardware secured in zone IV (bolt locks securing frames with attached units + unit custom bolt fasteners).
2. Deinstall the hardware stowed in containers in zone III.
3. Deinstall the containers of zone III – custom bolt fasteners (six on each container) attaching container to Progress #251 hull.
4. Deinstall the hardware stowed in containers in zone II.
5. Deinstall the hardware secured in zone II (bolt locks securing frames with attached units + unit custom bolt fasteners).
6. Do not deinstall containers in zone II.

When stowed in SM, the cargo items will be secured on panels of the SM interior (items may be either placed in Cargo Transfer Bags and secured with bungee cords, or temp stowed standalone and secured with bungee cords or Velcro) in accordance with delivered items stowage plan. Part of the delivered items will be installed in nominal locations right away.

Progress #251 Unloading Sequence

Crew Note	Zone	Plane	#	Item	Unfastening Method	Recommended ISS Location	Actual ISS Location
	Zone IV	I					
		I-II	1.	Nitrogen Purge Unit (БПА-1М) 77КСД.8213-0	Remove frame-to-hull custom bolt fasteners (five) + custom unit-to-frame bolt fasteners (four)	SM1[PO] plane 2 pnl 226, 227	
		II	2.	Purification Column Unit (БКО) 5184	Remove custom nuts (three) (ordinary opening of custom wrench) (from the side of plane IV) fastening БКО + custom bolt (one) fastening БКО to plane III	SM1[PO] plane 4 pnl 429	
		II-III	3.	Progress container cover III-2 11A615 Б1120-126А55	Remove custom bolts (seven) fastening container III-2 cover	Not to be transfered	
		III					
		III-IV	4.	TV Color Display ИТ-Ц (w/ БУВК-Ц) BA2.043.057	Remove frame-to-hull custom bolt fasteners (four) + unit-to-frame custom bolt fasteners (four)	SM1[PO] plane 1 pnl 106	

Progress #251 Unloading Sequence (cont.)

Crew Note	Zone	Plane	#	Item	Unfastening Method	Recommended ISS Location	Actual ISS Location	
	Zone IV	III-IV	5.	CTB 1P-10 S/N-1121	Cut restraining straps	SM1[PO] plane1 pnl 110		
				- Automatic Switch АП-5 KBO 6707.00.010				
				- Fan MO-2 5008P (BT-2)				
			IV					
			I-IV	6.	Pretreat Container 4627 with E-K hose	Remove frame-to-hull custom bolt fasteners (four) + unit-to-frame custom bolt fasteners (four)	SM1[PO] plane 4 pnl 453, 454	
					7.	Progress Tool Belt 11Φ615.4437-0A15	Cut restraining straps	Not to be transfered
		8.			Set of Crew Procedures – PROGRESS 251 TRANSFER OPERATIONS	Cut restraining straps	SM1[PO] plane 3 pnl 338	
	Quantity and Type of CTB	ZONE III CONTAINERS						
		Container III-1:						
			1.	Cold Plate Container №1 - 17KC.300Ю.9053-100	Cut restraining straps	SM1[PO] plane 4 pnl 426		
			2.	Color Monitor MLQ-27		SM1[PO] plane 1 pnl 102		

Progress #251 Unloading Sequence (cont.)

Crew Note	Zone	Plane	#	Item	Unfastening Method	Recommended ISS Location	Actual ISS Location	
	Single-sized CTB (two)		Container III-2:					
		1.	CTB 1P-7 S/N-1117			SM1[PO] plane 3 pnl 321		
			Universal Device for Neutralizing Static Electricity 17KC.300Ю 9050-0			SM1[PO] plane 2 pnl 220		
			Set of Accessories 342-3078.06.000			SM1[PO] plane 2 pnl 232		
			Dust Collector Bags (ten) 342-3078.08.000					
			Power Cord (10 m) in kit 342-3078.04.000					
			2.	CTB 1P-6 S/N-1116:			SM1[PO] plane 3 pnl 333	
				Protective Cover (System Power Panel) ППС-21			SM1[PO] plane 3 pnl 306	
				Protective Cover (System Power Panel) ППС-22			SM1[PO] plane 3 pnl 308	
				Protective Cover (System Power Panel) ППС-23			SM1[PO] plane 3 pnl 338	
				Protective Cover (System Power Panel) ППС-24				
				Protective Cover ПУРВ-К			SM1[PO] plane 4 pnl 432	
				Protective Cover (cabin air heaters control panel) ПУВН (one) (factory №10326331)			SM1[PO] plane 2 pnl 237	
				Protective Cover (cabin air heaters control panel) ПУВН (one) (factory №10326332)			SM1[PO] plane 4 pnl 440	
				Protective Cover (Signal-VM control panel) ПУС			SM1[PO] plane 3 pnl 330	
				Storage Battery Current Converter Control Unit БУПТ-М (two)			SM1[PO] plane 2 pnl 227	
				Inventory Management System Hardware: - Notebook PC Wiener Power Note R&K - P6300 [A5] - power supply (БП) -17KC.10Ю 2506-0 - 3.5" floppy disk IMS 1,2 (two) - power cable Wiener Power - A5-j01 - cable adapter Intel for Wiener Power - cable for Wiener Power Note -17KC.10Ю.8210A-4100 - cable for Wiener Power Note -17KC.10Ю.8210A-4110 - Floppy Disk Drive for Wiener Power - P 6000 FDM			SM1[PO] plane 3 pnl 333 MedLockerDesk	

Progress #251 Unloading Sequence (cont.)

Crew Note	Zone	Plane	#	Item	Unfastening Method	Recommended ISS Location	Actual ISS Location	
	Single-sized CTB (one)		Container III-3:					
			1.	Clod Plate Container №2 -17KC.300Ю.9053-500		FGB1		
			2.	СТВ 1P-5 S/N-1114:		pnl 336		
				Gas Mask ИПК-1 - BT8-068.00.000		SM1[PO] plane 2 pnl 221		
			Treadmill Fan ВПО 12 - МО-2-5008		SM1[PO] plane 1 pnl 130			
			Docking assembly Accessories Kit: -УКЛАДКА с ЗБВ (Quick Disconnect Screw Clamp Kit)		SM1[PO] plane 3 pnl 463			
			-Hatch Handles 11Φ732 Г9000A1-40 (two)		SM1[PO] plane 3 pnl 321			
			Restraint Kits – 17KSM-3117-510 (bungees)		SM1[PO] plane 3 pnl 339			
			Container III-4:					
			1.	Cold Plate Container №3 - 17KC.300Ю.9053-1000	Cut restraining straps	FGB1		
			2.	Vacuum Cleaner ПО-70		SM1[PO] plane 4 pnl 453		
	Zone III	I						
		II						
		III						
		IV						

Progress #251 Unloading Sequence (cont.)

Crew Note	Zone	Plane	#	Item	Unfastening Method	Recommended ISS Location	Actual ISS Location	
		Quantity and Type of CTB	ZONE II CONTAINERS					
		Single-sized CTB (three)	Container II-1:					
			1.	Cape Thermal Shield №5 - 17KC.210Ю 1820-100			SM1[PO] plane 4 pnl 429	
			2.	Foot Restraint - 17KC.300Ю 1410-0			SM1[PO] plane 4 pnl 415	
			3.	Foot Restraint - 17KC.300Ю 1420-0			SM1[PO] plane 1 pnl 111	
			4.	CTB 1P-1 S/N-1110			SM1[PO] plane 2 pnl 226, 227	
			5.	CTB 1P-2 S/N-1111			FGB1	
			6.	CTB 1P-4 S/N-1113			SM1[PO] plane1 pnl 110	
		Single-sized CTB (three)	Container II-2:					
			1.	CTB 1P-3 S/N-1112			SM1[PO] plane 4 pnl 427	
			2.	CTB 1P-8 S/N-1119			SM1[PO] plane 2 pnl 207, 208	
			3.	CTB 1P-9 S/N-1120			SM1[PO] plane 2 pnl 226, 227	
			Container II-3 – does have any delivered items					
			Container II-4 – does have any delivered items					

Progress #251 Unloading Sequence (cont.)

Crew Note	Zone	Plane	#	Item	Unfastening Method	Recommended ISS Location	Actual ISS Location
	Zone II	I	1.	Cassette Containers (two) 6541.000	Frame-to-hull bolt locks (four) with containers (two)+ container-to-frame custom bolt fasteners (four) on each container	FGB1	
		II	2.	Cassette Container (one) 6541.000	Container-to-frame custom bolt fasteners (four)	FGB1	
		III	3.	Vozdukh Fan (microflow compressor MP5-15Г)	Frame-to-hull bolt locks (four) with CT-64 and КЦП computer + custom bolts (four) of clamps (two) securing microflow compressor MP5-15Г	SM1[PO] plane 1 pnl 106	

Progress #251 Unloading Sequence (cont.)

Crew Note	Zone	Plane	#	Item	Unfastening Method	Recommended ISS Location	Actual ISS Location	
	Zone II	III	4.	Current Stabilizer CT-64 10192.435253.00.000.-01	Custom bolt fasteners (four) of CT-64	SM1[PO] plane 2 pnl 226, 227		
			5.	Central Post Computer (KЦП) 17KC. 10Ю.2504-0	Unit-to-frame custom bolt fasteners (six) of KЦП + frame-to-hull bolt locks (four) with attached CT-64 and microflow compressor MP5-15Г	SM1[PO] plane 1 pnl 106		
		IV						
		Center	6.	Liquid Unit 10319.6161.00.000	Unit-to-frame custom bolt fasteners (four) + unit custom bolt fasteners (two) from plane II side and custom bolt fasteners (two) of clamp with unit from plane IV side — use wrench extension tool	SM1[PO] plane 4 pnl 429, 430		
	Q-ty and Type of CTB	ZONE I CONTAINERS						
		Container -1 – does have any delivered items						
		Container -2 – does have any delivered items						
		Container -3 – does have any delivered items						
		Container -4 – does have any delivered items						
		Container -5 – does have any delivered items						

Progress Containers and CTB Contents

Progress Container (or CTB) Contents:			ISS LOCATION
<u>Container №II-1</u>			
Description	Decimal Number	Quantity	
<u>Single-sized CTB №1P-1 S/N-1110</u>	SEG33111838-303	1	
Solid O2 Generator (ТГК) Filter	6477.010	1	
Pressure Alarm Sensor ДСД	Т72.832.003	1	
Heat-Reflecting Duct Т3К for ТГК:	17КС.210Ю 1820-0	1	
– heat-reflecting screen 2	17КС.210Ю 1820-20	1	
– heat-reflecting screen 3	17КС.210Ю 1820-30	1	
– heat-reflecting screen 4	17КС.210Ю 1820-40	1	
Filter-Reactor ФР	10254.5785.000	1	
Rodnik System Accessories: [A-P] hose №26 - 17КС.8798-240; Pressurization Adapter- 17КС.8798-120; Mating Adapter - №39 - 17КС.8798-160; Dispenser Unit - К5Д-9220-850	17К.8798-0-2	1 1 1 1	
Voice Converter ВСБ-92	ИХ2.133.001	1	
TV Signal Regenerator КЛ-161	ТЭ2.206.520	1	
<u>Single-sized CTB №1P-2 S/N-1111</u>	SEG33111838-303	1	
Matching Unit УС21	ПИМЖ466225.031	1	
Accessory Bag for УС21	ПИМЖ305363.003-31,-07...-12	7	
Matching Unit УС22	ПИМЖ466225.032	1	
Accessory Bag for УС22	ПИМЖ305363.003-31,-13,-14.-15	7	
Scanning and Power Unit РП-Ц	ВА2.051.026	1	
Terminal Switch Unit [КСР]	17КС.33Ю 2334-0	1	

Progress Containers and CTB Contents (Cont.)

Progress Container (or CTB) Contents:			ISS LOCATION
<u>Container №11-1 (cont.)</u>			
Description	Decimal Number	Quantity	
Single-sized CTB №1P-4 S/N-1113	SEG33111838-303	1	
Adapters N1 & N2	17KC.52Ю 9008-0	2	
Feedline Adapter MP-2	17KSM-7616-4070	1	
Wrench Assembly Set [CKB]:			
-Wrench	KBO.8787-02	1	
-Wrench S32	KBO.8793.000	1	
-Wrench S22	KBO.8793.000-01	1	
-Wrench S12	KBO.8793.000-02	1	
-Wrench S24	KBO.8793.000-03	1	
-Screwdriver	ЭЦО.017.80	1	
-Control Valve №1 & №3	KBO.7226.000	2	
-Tank	KBO.6003	2	
-Foaming Paste ППИ-02	ППИ-02	1	
Fans	17K.8132-0	2	
Cable Insert (Jumper Cable? – Transl.Note.)	11Ф615 Б1511-1060А55	2	
Rotational Hand Controller (PYO)	11Ф732.А1833-120А4	1	
Translational Hand Controller (PYД)	11Ф732.А1833-150А4	1	
Electrical Food Warmer	17KC.260Ю 2000-0	1	
Power Cable for Electrical Food Warmer	17KC.10Ю.8210А-7930	1	

Progress Containers and CTB Contents (Cont.)

Progress Container (or CTB) Contents:			ISS LOCATION
<u>Container №II-1 (cont.)</u>			
Description	Decimal Number	Quantity	
<u>Single-sized CTB №1P-4 S/N-1113 (cont.)</u>	SEG33111838-303	1	
Crew Restraints:			
- Belt-Restart	17KC. 300Ю 1440-0	1	
<u>Deliverables stowed separately in container № II-1:</u>			
Cape Thermal Shield #5	17KC.210Ю 1820-100	1	
Crew Restraints:			
- Foot Restraint	17KC. 300Ю 1410-0	1	
- Foot Restraint	17KC. 300Ю 1420-0	1	
<u>Container №II-2.</u>			
Description	Decimal Number	Quantity	
<u>Single-sized CTB №1P-3 S/N-1112</u>	SEG33111838-303	1	
Vozdukh CO2 Removal System:			
Vacuum Pump Unit	17KC.215Ю 5300-300	1	
Two-Position Valve (Selection Valve)	17KC.215Ю 5210-0	1	
D/A Converter (ЦАП)	17KC.215Ю 2700-0	1	
CO2 Removal System Test Panel (ПП [COA])	17KC.10Ю 2425-0	1	
Wrench #9	17K.8901-360	1	

Progress Containers and CTB Contents (Cont.)

Progress Container (or CTB) Contents:			ISS LOCATION
<u>Container №11-1 (cont.)</u>			
Description	Decimal Number	Quantity	
<u>Single-sized CTB №1P-8 S/N-1119</u>	SEG33111838-303	1	
Electron-VM System:			
Signal & Command Matching Unit (БССК)	6056	1	
Connector Mating Device	УФ059.003.00	1	
Cable 1	6057	1	
Cable 2	6058	1	
Cable 3	6059	1	
Pressure Indicator (БИД)	6508	1	
Onboard Systems Manual Control Hardware:			
Laptop Thinkpad	17KC.10Ю 2505-0	2	
Power Supply Unit – PCS PWR SUPPLY	SEG 39126010-305	2	
Cable	SEG 39129263-301	2	
Cable	17KC.10Ю 8210A-20	1	
Cable	17KC.10Ю 8210A-30	1	
Cable	17KC.10Ю 8210A-40	1	
Cable	17KC.10Ю 8210A-50	1	
Cable	17KC.10Ю 8210A-70	1	
Cable	17KC.10Ю 8210A-120	1	
Cable	17KC.10Ю 8210A-150	1	
Cable	17KC.10Ю 8210A-320	1	
Cable	17KC.10Ю 8210A-3340	1	

Progress Containers and CTB Contents (Cont.)

PROGRESS CONTAINER (or CTB) CONTENTS:			ISS LOCATION
<u>Container №II-2 (Cont.)</u>			
Description	Decimal Number	Quantity	
<u>Single-sized CTB №1P-8 S/N-1119 (Cont.)</u>	SEG33111838-303	1	
Cable	17KC.10Ю 8210A-3390	1	
Cable	17KC.10Ю 8210A-4680	1	
Cable	17KC.10Ю 8210A-4690	1	
Cable	17KC.10Ю 8210A-4720	1	
Cable	17KC.10Ю 8210A-4770	1	
Adapter Cable 3COM		2	
Adapter Cable DDC		2	
<u>Single-sized CTB №1P-9 S/N-1120</u>	SEG33111838-303	1	
Gas Analyzer (ГА) for Elektron System:			
Unit ГЛ5188 (O2 to H2)	1Г2.840.857	3	
Unit ТП1187 (H2 to O2)	1Г2.840.870	2	
Gas Analyzer ТП1188 (H2)	1Г2.840.890	1	
Elektron water supply system hardware:			
Water Transfer Valves (БП)	4715	1	
Hose [A-P] №26	17K.8798-240	1	
Mating Adapter № 39	17K.8798-160	1	
<u>Container №III-1</u>			
Description	Decimal Number	Quantity	
Cold Plate Container №1	17KC.300Ю.9053-100	1	
Color Monitor МЦ-27	ГЛМИ2.048.000	1	

Progress Containers and CTB Contents (Cont.)

PROGRESS CONTAINER (or CTB) CONTENTS:			ISS LOCATION
<u>Container №III-2</u>			
Description	Decimal Number	Quantity	
<u>Single-sized CTB №1P-6 S/N-1116</u>	SEG33111838-303	1	
Protective Covers for Control Panels:			
Protective Cover for ППС-21 (System Power Panel)	17КС.10Ю 2483-0-20	1	
Protective Cover for ППС-22	17КС.10Ю 2483-0-21	1	
Protective Cover for ППС-23	17КС.10Ю 2483-0-22	1	
Protective Cover ППС-24	17КС.10Ю 2483-0-23	1	
Protective Cover for ПУВН (Cabin Air Heaters Control Panel)	17КС.10Ю 2487-0	2	
Protective Cover for ПУРВ-К (Condensate Water Processor Control Panel)	17КС.10Ю 2488-0	1	
Protective Cover for ПУС (Signal-VM Control Panel)	17КС.10Ю 2489-0	1	
Storage Battery Current Converter Control Unit (БУПТ-М)	ЕИГА.468333.001-03	2	
Inventory Management System:			
– portable computer Wiener PowerNote	R&K P6300	1	
– Power Supply (БП)	17КС.10Ю 2506-0	1	
– Power Supply Cable for Wiener Power	A5-j01	1	
– Intel Adapter Cable for Wiener Power	A5-j02	1	
– Cable for Wiener PowerNote	17КС.10Ю 8210A-4100	1	
– Cable for Wiener PowerNote	17КС.10Ю 8210A-4110	1	
– 3.5" Floppy Disks (two) IMS 1,2	БДИ 1,2	2	
– Kit with Floppy Drive for Wiener PowerNote	P6000FDM	1	

Progress Containers and CTB Contents (Cont.)

PROGRESS CONTAINER (or CTB) CONTENTS:			ISS LOCATION
<u>Container №III-2 (Cont.)</u>			
Description	Decimal Number	Quantity	
<u>Single-sized CTB №1P-7 S/N-1116</u>	SEG33111838-303	1	
Toilet System:			
ПО-70 Set of Accessories	342-3078.06.000	1	
ПО-70 Dust Collector Bags (ten)	342-3078.08.000	1	
ПО-70 Power Cord – ШНУР (10 m) in kit	342-3078.04.000	1	
Universal Device for Neutralizing Static Electricity:			
– Pack	17KC.300Ю 9052-0	1	
– Universal Connectors	33У.5512.022	2	
– Cables	33У.5512.056-076	21	
– Cables	33У.5512.077	2	
– Grounding Bracelets	33У.5512.083	3	
<u>Container №III-3</u>			
Description	Decimal Number	Кол.	
<u>Single-sized CTB №1P-5 S/N-1114</u>	SEG33111838-303	1	
Gas Mask ИПК-1	BT8-068.00.000	1	
Treadmill Fan ВПО -12	МО-2-5008	1	
Docking Assembly Accessories:			
-УКЛАДКА с ЗБВ (Quick Disconnect Screw Clamp Kit)	11Ф732.Г4000А6-150	1	
- Hatch Handles (two)	11Ф732.Г9000А1-40	2	
Restraints Kit (Bungees)	17KSM-3117-510	1	
<u>Deliverables stowed separately in container № III-3:</u>			
Cold Plate Container №2	17KC.300Ю.9053-500	1	

Progress Containers and CTB Contents (Cont.)

PROGRESS CONTAINER (or CTB) CONTENTS:			ISS LOCATION
<u>Container №III-4</u>			
Description	Decimal Number	Quantity	
Col Plate Container №3	17KC.300Ю.9053-1000	1	
ПО-70 Vacuum Cleaner	342-3078.00.000	1	
<u>Deliverables stowed in CTB №1P-10 tethered between planes III and IV (above container III-3):</u>			
<u>Single-sized CTB №1P-10 S/N-1121.</u>	SEG33111838-303	1	
Automatic Switch АП-5	KBO 6707.00.010	1	
Fan (BT-2)	МО-2 5008P	1	
Storage Battery Current Converter Control Unit (БУПТ-1М)	ЕИГА 468333.001-03	1	

Item	Decimal Number	Factory Number	Owner [P] - Rus	Q-ty	Mass of one unit (kg)	Dimensions		
						L	H	B
1	2	3	4	5	6	7		
<i>CKO Units:</i>								
Current Stabilizer (СТ-64)	ЕИГА.435253.001	53020005	«Р»	1	20,00	380	335	280
Nitrogen Purge Unit (БПА –1М)	77КСД.8213-0	№14 партии 1	«Р»	1	15,00	448	302	280
<i>Gas Analyzers for Elektron System:</i>								
Unit ГЛ5188 (O2 to H2)	1Г2.840.857	022, 023, 024	«Р»	3	1.05	185	135	59
Unit ТП1187 (H2 to O2)	1Г2.840.870	016, 019	«Р»	2	0.90	142	71	115,5
Gas Analyzer ТП1188 (H2)	1Г2.840.890	008	«Р»	1	1.30	202	84	132
<i>Elektron Water Supply System Units:</i>								
Water Transfer Valves (БП)	10123.4715.000	802051	«Р»	1	2.65	270	120	120
Purification Column Unit (БКО)	10192.5184.000.00	705080	«Р»	1	17.35	710	270	254
Hose [A-P] №6	17К.8798-240	№26 партии 11	«Р»	1	0.85			
Mating Adapter	17К.8798-160	№39 партии 1	«Р»	1	0.56	143	143	100
[CBO] (Water Supply System)								
<i>Water Condensate Recovery System [CPB-K2]</i>								
Filter-Reactor (ФР)	10254.5785.000	704007	«Р»	1	3.18	264	318	
Rodnik System								
Rodnik System Accessories	17К.8798-0-2		«Р»	1	3.05	380	110	
-Hose [A-P]			«Р»	1	0.55			
-Pressurization Adapter	17К.8798-120		«Р»	1	0.22			
-Mating Adapter	17К.8798-160		«Р»	1	0.50			
-Dispenser Unit	К5Д-9220-850		«Р»	1	0.50			

Item	Decimal Number	Factory Number	Owner [P] - Rus	Q-ty	Mass of one unit (kg)	Dimensions		
						L	H	B
1	2	3	4	5	6	7	8	9
СППЗ (Fire Protection System)								
Gas Mask (ИПК-1)	BT8-068.00.000	№004 партии 1	«P»	1	2.50	140	365	
СОТР (Thermal Mode Control System)								
Air-Conditioning System [СКВ] Wrench Assembly Set:								
- Wrench	КВО.8787.000-02	121210	«P»	1	0.32			
- Wrench S32	КВО.8793.000	990430	«P»	1	0.34			
- Wrench S22	КВО.8793.000-01	990440	«P»	1	0.28			
- Wrench S12	КВО.8793.000-02	990470	«P»	1	0.23			
- Wrench S24	КВО.8793.000-03	990480	«P»	1	0.30			
- Screwdriver	ЭЦО.017.80	001	«P»	1	0.50			
- Control Valve (two)	КВО.7226.000	02, 03	«P»	2	0.70			
- Tank	КВО.6003.000	155004	«P»	2	0.50			
- Foaming Paste	ППИ-002	188002	«P»	1	0.10			
Air Circulation Hardware								
Fans	17K.8132-0	10332412, 10332413	«P»	2	0.33			
Cable-insert	11Ф615 Б1511- 1060А55	10323233, 10323234	«P»	2	0.25			
Adapter	17КС.52Ю 9008-0	1, 2	«P»	2	0.08	∅ 40	100	
Feedline Adapter MP3	17KSM.7616-4070	№1 партии 002001	«P»	1	1.80	1000	∅300	
Treadmill Fan ВПО-12	МО-2-5008	9507076	«P»	1	3.00			
Automatic Switch АП-5	КВО 6707.00.010	210134320	«P»	1	2.00			
Fan МО-2-5008P ([BT]-2)	МО-2-5008P	9808156	«P»	1				

Item	Decimal Number	Factory Number	Owner [P] - Rus	Q-ty	Mass of one unit (kg)	Dimensions		
						L	H	B
1	2	3	4	5	6	7	8	9
СУБА (Onboard Equipment Control System)								
Onboard Equipment Manual Control System								
Central Poast Computer (КЦП)	17KC.10Ю 2504-0	004/FM	«P»	1	11.35			
Power Supply Unit for PCS PWR SUPPLY	SEG 39126010-305	1009, 1012	«P»	2	0.63			
Laptop Thinkpad	17KC. 10Ю 2505-0	1010, 1011	«P»	2	3.67	296	210	50
Protective Covers for Control Panels: Protective Cover for ППС-21 (System Power Panel)	17KC. 10Ю 2483-0-20	10326331	«P»	1	0.12	220	220	30
Protective Cover for ППС-22	17KC. 10Ю 2483-0-21	10326332	«P»	1	0.12	220	220	30
Protective Cover for ППС-23	17KC. 10Ю 2483-0-22	10326331	«P»	1	0.12	220	220	30
Protective Cover for ППС-24	17KC. 10Ю 2483-0-23		«P»	1	0.12	220	220	30
Protective Cover for ПУВН (Cabin Air Heaters Control Panel)	17KC. 10Ю 2488-0	10328532	«P»	1	0.13	380	200	30
Protective Cover for ПУРВ-К (Condensate Water Processor Control Panel)	17KC. 10Ю 2487-0	10326331, 10326332	«P»	2	0.08	180	170	30
Protective Cover for ПУС (Signal-VM Control Panel)	17KC. 10Ю 2489-0	10328533	«P»	1	0.10			
Cables (two)	SEG 39129263-301	6034, 6036	«P»	2	0.17			
Cable	17KC.10Ю 8210A-20	10353232	«P»	1	0.08			
Cable	17KC.10Ю 8210A-30	10353232	«P»	1	0.08			
Cable	17KC.10Ю 8210A-40	10353232	«P»	1	0.09			
Cable	17KC.10Ю 8210A-50	10353232	«P»	1	0.34			

Item	Decimal Number	Factory Number	Owner [P] - Rus	Q-ty	Mass of one unit (kg)	Dimensions		
						L	H	B
1	2	3	4	5	6	7	8	9
БВС (Onboard Computer System)								
Matching Unit УС21	ПИМЖ 466225.031	094	«Р»	1	6.58	210	190	175
Accessories for УС21	ПИМЖ 305363.003-31-07, ...-12	094-02,-08	«Р»	7				
Matching Unit УС22	ПИМЖ 466225.032	085	«Р»	1	6.58	210	190	175
Accessories for УС22	ПИМЖ 305363.003-31-13,- 14,-15	085-02....-08	«Р»	7				
Scanning & Power Unit РП-Ц	ВА2.051.026	048008	«Р»	1	1.8	206	200	90
TV Color Display ИТ-Ц (with БУВК-Ц)	ВА2.043.057	038001/2	«Р»	1	12			
Terminal Switch Unit [КСР]	17КС.33Ю 2334-0	10335251	«Р»	1	0.88	250	130	70
СУДН (Motion Control and Navigation System)								
Teleop Control Equipment (ТОРУ):								
Roatational hand Controller (РУО)	11Ф732 А1833- 120А4	1032914641	«Р»	1	1.23	360	220	90
Translational Hand Controller (РУД)	11Ф732 А1833- 150А4	10351218	«Р»	1	1.05	360	210	80
СЭП (SM Power Supply System)								
Storage Battery Current Converter Control Unit (БУПТ-1М)	ЕИГА 468333.001- 03	93060030, 93060033 93060034	«Р»	3	3.60	180	180	150

Item	Decimal Number	Factory Number	Owner [P] - Rus	Q-ty	Mass of one unit (kg)	Dimensions		
						L	H	B
1	2	3	4	5	6	7	8	9
CTOP (Inflight Maintenance and Repair System)								
Cold Plate Container №1 with thermal conductive pads ТП-ТРГ-Л	17KC.300Ю.9053- 100		«P»	1	6.07	310	260	230
Cold Plate Container №2 with thermal conductive pads ТП-ТРГ-Л	17KC.300Ю.9053- 500		«P»	1	10.89	465	425	242
Cold Plate Container №3 with thermal conductive pads ТП-ТРГ-Л	17KC.300Ю.9053- 1000		«P»	1	10.77	465	400	216
						680	523	100
Universal Device for Neutralizing Static Electricity:	17KC.300Ю 9052-0		«P»	1	6.30	680	523	100
Universal Connector	33У.5512.022	10335255, 10335256	«P»	2	0.26			
Cable	33У.5512.056-076	10335252	«P»	21	6.00			
Cable	33У.5512.077	10335253, 10335254	«P»	2	0.04			
Grounding Bracelet	33У.5512.083	10353234, 10353235, 10353236	«P»	3	0.05			
Progress Tool Belt #251	11Ф615.4437-0A15	635-99	«P»	1	0.8	250	150	100

