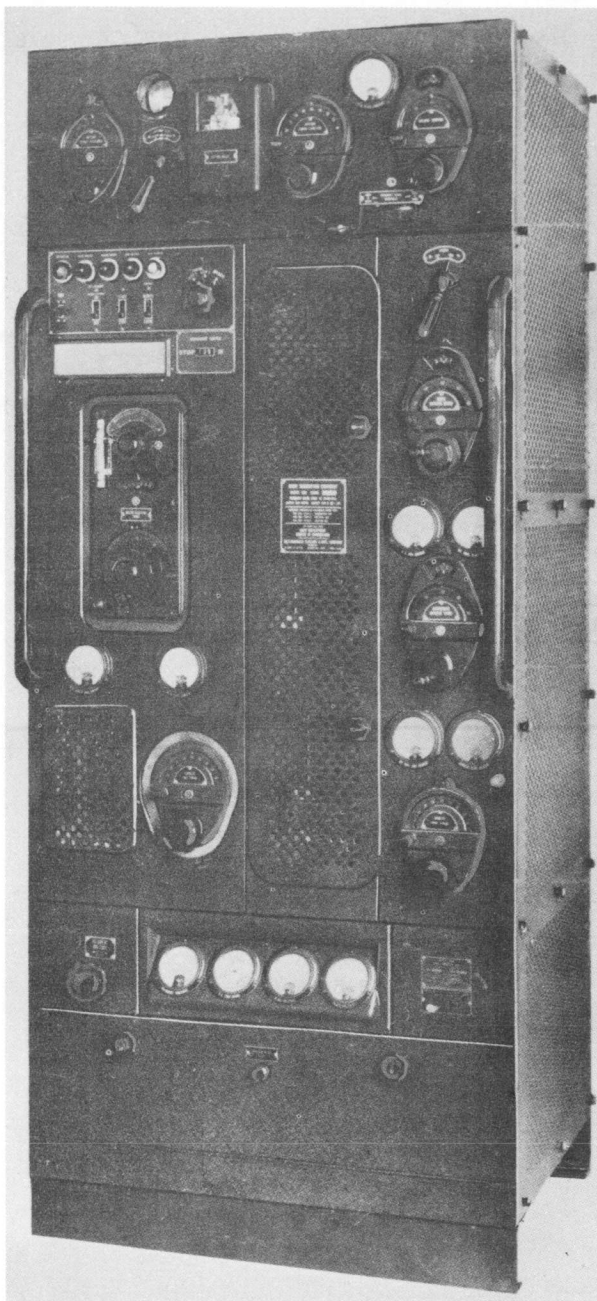


April 1958

RADAR TRANSMITTING EQUIPMENT**TBK, TBK-7**

Radio Transmitting Equipment TBK, TBK-7

FUNCTIONAL DESCRIPTION

The TBK, TBK-7 is a radio telegraph transmitter for ship or shore HF communications. It employs a junction box for use where two transmitters and two rectifier equipments are

installed near each other, the rectifier circuits being connected to the transmitters via the Junction Box. A typical installation, in this respect, consists of a TBK and the MF transmitting equipment TAJ.

The power output of the transmitter may be varied from full power to a low power of 75 watts for telegraphic signalling purposes by disconnecting the final RF amplifier. Remote control is possible aboard ship through use of a 4 or 6 wire system.

Data on this sheet reflects the following field changes: Field Change Number 3-TBK.

RELATION TO OTHER EQUIPMENT

The Radio Transmitting equipments TBK Series are all very similar. However, some are used at shore stations, others are used aboard ship. The TBK is a general purpose equipment.

The only other important difference is in the power equipment used; some equipments using rectifier units, others operating from motor generators.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQ RANGE: 2.0 to 18.1 mc.
 FREQ CONTROL: MO.
 EMISSION: A1.
 POWER OUTPUT: 500 W.
 KEYING SPEED: 100 words per minute.
 POWER SOURCE REQUIRED: 440 v, 60 cps, 3-ph.
 POWER SUPPLY EQUIP: Rectifier power unit.
 ANTENNA: 60 to 80 ft vert.

MANUFACTURER'S OR CONTRACTOR'S DATA

Westinghouse Electric and Mfg Co, Chicopee Falls, Mass.

Contract NOs-36091, dated 8 May 1934 (TBK).

Westinghouse Electric and Mfg Co, Baltimore, Maryland.

Contract NOs-58126, dated 15 December 1937 (TBK-7).

Approximate Cost: \$7020.00 with equipment spares (TBK-7).

TUBE AND/OR CRYSTAL COMPLEMENT

	TBK	
(4) 3B28		(1) 861
(2) 4B26		(6) 872A
(3) 860		
Total Tubes: (16)		
	TBK-7	
(1) 861		(3) 860
Total Tubes: (4)		

Radio-Transmitters

TBK, TBK-7

RADAR TRANSMITTING EQUIPMENT

April 1958

REFERENCE DATA AND LITERATURE

Technical Manual for Navy Model TBK Radio
Telegraph Transmitting Equipment.
Technical Manual for Navy Model TBK-7 Radio
Telegraph Transmitting Equipment.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE
STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Radio Transmitter Unit -52079** -52032*	24 X 32 X 72 24 X 32 X 72	695 695
1	Rectifier Power Unit -20018*	22-7/8 X 23-15/16 X 71-7/8	975
1	Motor Generator Unit -21242** C/O (1) High Voltage Generator -21240 (1) Low Voltage Generator and Exciter -21241	18-9/16 X 18-3/4 X 70-1/8	885
1	Motor Starter -21304**	8-1/2 X 11 X 17	30
1	Junction Box -23055*	11-7/8 X 23-7/16 X 46-1/8	150
1	Set of Equip Spares*	18 X 18-1/8 X 31-1/4	200
1	Spare Parts Box**	15-1/2 X 16-3/8 X 25-1/4	107
1	Spare Parts Box**	12-1/2 X 21-1/2 X 26-1/4	125
1	Spare Parts Box**	9-1/2 X 10-1/8 X 34-3/4	105
1	Spare Parts Box**	8-1/2 X 9 X 23-1/4	65

NOTE: *TBK only
**TBK-7 only

June 1961

Radio-Transmitters

RADIO TELEGRAPH TRANSMITTING EQUIPMENT TBK-1

FUNCTIONAL DESCRIPTION

The TBK-1 is designed for use on various types of Naval vessels or at shore stations.

The design of the transmitter unit is based on the master oscillator power amplifier principle and provision is made for current feeding or voltage feeding the antenna as may prove more desirable for the particular condition involved. The transmitter as controlled by the master oscillator is continuously variable as to the emitted frequency in the specified frequency band. The keying system provides for break-in operation and is designed for satisfactory service at keying speeds up to 100 words per minute. The power output may be varied from full power to a minimum of 25% by means of a single control on the rectifier unit.

No field changes in effect at time of preparation (8 March 1960).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

TYPE OF EMISSION: A1.

KEYING SPEEDS: Up to 100 words per minute.

NOMINAL OUTPUT POWER: 75 and 500 watts

OPERATING FREQUENCY RANGE: 2,000 to 18,100 kc and 2,000 to 9,050 kc.

MANUFACTURER'S OR CONTRACTOR'S DATA

Westinghouse Electric Mfg Co., Chicopee Fall, Massachusetts.

TUBE AND/OR CRYSTAL COMPLEMENT

(4) 3B28	(6) 860
(4) 861	(6) 872A

Total Tubes: (20)

No Crystals used.

REFERENCE DATA AND LITERATURE

NAVSHIPS 900,123(B): Technical Manual for Naval Electronic Equipments.
 Technical Manual for Navy Model TBK Radio Telegraph Transmitting Equipment.

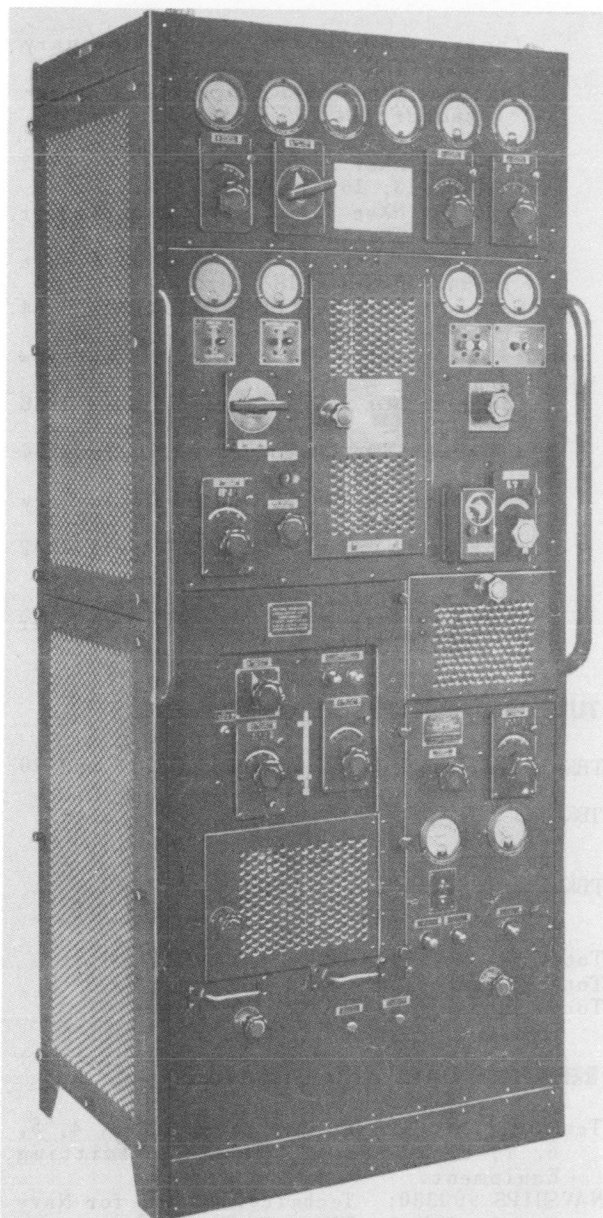
TYPE CLASSIFICATION (NAVY) DESIGN COGNIZANCE NAVY BUSHIPS PROCUREMENT COGNIZANCE STOCK NO. R.D.B. IDENT. NO.
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EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Transmitter	24 X 32 X 72	695
1	Rectifier	22-7/8 X 23-15/16 X 71-7/8	975
1	Junction Box	11-7/8 X 23-7/16 X 46-1/8	150
1	Set of Equipment Spares	18 X 18-1/8 X 31-1/4	200

RADIO TRANSMITTING EQUIPMENT

Radio-Transmitters
TBK-3 THRU 20



Radio Transmitting Equipment TBK-3 thru 20

FUNCTIONAL DESCRIPTION

The TBK-3, 5, 7, 8, 9, 10, 12, 13, 14, 17, 18, 19 and 20 are intended for use on all types of Naval vessels except certain types of submarines.

The TBK-6, 11, 15 and 16 are shore based equipments, while the TBK-4 is intended for use on either Naval vessels or shore bases.

All equipments are medium power HF transmitters capable of relay keying speeds up to 100 words per minute; however, the shore-

based equipments with the exception of the TBK-4 and 6, facilitate vacuum tube keying speeds up to 500 words-per-minute. The transmitter power output may be varied from full power to a minimum of 75 watts for telegraphic signaling by disconnecting the power amplifier.

Either local or remote operation is possible. Remote operation of any of the shipboard transmitters is possible by use of a standard 4 or 6 wire control system, while operation of the shore-based equipments is accomplished through use of a land line when telegraphing.

Data on this sheet reflects the following field changes, FC-1 for TBK-17, (C-2 and 3 for TBK series) (21 September 1956).

RELATION TO OTHER EQUIPMENT

All TBK and TBM series equipments are basically similar, the principle difference being the TBK's are strictly A1 radio telegraph transmitters, and therefore are not equipped with modulators. In addition, there is some flexibility in the type power equipment used with the various transmitters.

Equipment Required but not Supplied:
Antenna as required.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 2000 to 18100 kc.

FREQUENCY CONTROL: Master oscillator.

EMISSION: A1.

POWER OUTPUT: 75 or 500 W.

KEYING SPEED

SHORE: 500 wpm max (except TBK-4 and 6).

SHIPBOARD: 100 wpm max (includes TBK-4 and 6).

ANTENNA DATA: 80 ft max length outside trunk.

POWER REQUIREMENT DATA

TBK-3: 115 v DC (Motor NT-21160, Generators NT-21071 and 21072).

230 v DC (Motor NT-21161, Generators NT-21036 and 21037).

TBK-4: 440 v, 60 cps, 3 ph (Rectifier NT-20018).

TBK-5: 115 v DC (Motor NT-21243, Generators NT-21240 and 21241).

230 v DC (Motor NT-21244, Generators NT-21240 and 21241).

440 v, 60 cps, 3 ph (Motor NT-21242, Generators NT-21240 and 21241).

TBK-6: 220 or 440 v, 25 cps, 3 ph (Motor NT-21248, Generators NT-21246 and 21247).

220 v, 60 cps, 2 ph (Motor NT-21245, Generators NT-21240 and 21241).

TBK-6: 220 v, 60 cps, 3 ph (Motor NT-21242, Generators NT-21240 and 21241).

Radio-Transmitters
TBK-3 THRU 20

RADIO TRANSMITTING EQUIPMENT

230 v DC (Motor NT-21244, Generators NT-21240 and 21241).
 TBK-7: 440 v, 60 cps, 3 ph (Motor NT-21242, Generators NT-21240 and 21241).
 TBK-8: 115 v DC (Motor-Generator NT-21330, A, B or C).
 230 v DC (Motor-Generator NT-21331, A, B or C).
 220 or 440 v, 60 cps, 3 ph (Motor Generator NT-21332, A, B, or C).
 TBK-9: 115 v DC (Motor-Generator NT-21401).
 230 v DC (Motor-Generator NT-21402).
 220 or 440 v, 60 cps, 3 ph (Motor Generator NT-21403).
 TBK-10: Same as TBK-8.
 TBK-11: 220 v, 60 cps, single ph (Motor Generator NT-21671).
 220 v, 60 cps, 3 ph (Motor-Generator NT-21522).
 220 or 440 v, 25 cps, 3 ph (Motor-Generator NT-21521).
 TBK-12: Same as TBK-8.
 TBK-13: 115 v DC (Motor-Generator NT-21675).
 230 v DC (Motor-Generator NT-21676).
 220 or 440 v, 60 cps, 3 ph (Motor-Generator NT-21677).
 TBK-14: Same as TBK-8.
 TBK-15: 220 v, 60 cps, 3 ph (Motor-Generator NT-21677).
 TBK-16: 220 or 440 v, 50 or 60 cps, 3 ph (Rectifier Power Unit NT-20228).
 TBK-17: Same as TBK-8.
 TBK-18: 440 v, 60 cps, 3 ph (Motor-Generator NT-21677).
 TBK-19: 230 v DC (Motor-Generator NT-211340).
 220 or 440 v, 60 cps, 3 ph (Motor-Generator NT-211286).
 TBK-20: 115 v DC (Motor-Generator NT-21675).
 230 v DC (Motor-Generator NT-21676).

Contract NOs 80646, dated 8 January 1941 (TBK-11, 13, 15, 18, 20).
 Contract NOs 80646 sup, dated 21 September 1942 (TBK-11, 13, 15, 18, 20).
 Contract NXsr 18237, dated 1 July 1943 (TBK-13, 16, 18, 20).
 Contract NXsr 38688, dated 28 September 1943 (TBK-13, 16, 18, 20).
 Contract NXsr 36550, dated 23 August 1943 (TBK-13, 18, 20).
 Contract NXsr 51573, dated 14 July 1944 (TBK-13, 18, 20).
 Radio Corporation of America, Camden, New Jersey.
 Contract NOs 16006, dated 15 June 1938 (TBK-8).
 Contract NOs 70875, dated 10 January 1940 (TBK-10).
 Contract NOs 80750, dated 14 January 1941 (TBK-12).
 Contract NXs-655, dated 20 April 1942 (TBK-14).
 Contract NXss-28616 (TBK-17).
 Contract NXsr 38496, dated 30 September 1943 (TBK-19).

TUBE AND/OR CRYSTAL COMPLEMENT

TBK-3, 5, 6, 7, 8, 9, 10, 12, 13, 14, 17, 18, 19 and 20
 (3) 860 (1) 861
 TBK-4
 (4) 3B28 (2) 4B26 (1) 861
 (6) 872A (3) 860
 TBK-11, 15 and 16
 (1) OC3W (1) 5Z3 (3) 860
 (1) 861 (2) 807
 Total Tubes: (4) TBK-3, etc.
 Total Tubes: (16) TBK-4
 Total Tubes: (8) TBK-11, 15 and 16

REFERENCE DATA AND LITERATURE

Technical Manuals for Navy Model TBK-3, 4, 5, 6, 7, 8, 10 and 17, Radio Transmitting Equipment.
 NAVSHIPS 900380: Technical Manual for Navy Models TBK-9, TBM-4 Radio Transmitting Equipment.
 NAVSHIPS 900386: Technical Manual for Models TBM-6, 8, TBK-11, 15 Radio Transmitting Equipments.
 NAVSHIPS 95293: Technical Manual for Radio-Telegraph Transmitting Equipment Model TBK-12.
 NAVSHIPS 900388: Technical Manual for Navy Models TBM-5, 7, 9, 11, TBK-13, 18, 20 Radio Transmitting Equipment.
 NAVSHIPS 95294: Technical Manual for Navy Model TBK-14 Radio-Telegraph Transmitting Equipment.
 NAVSHIPS 900387: Technical Manual for Navy

MANUFACTURER'S OR CONTRACTOR'S DATA

Westinghouse Electric and Mfg. Company, Baltimore, Maryland.
 Contract NOs 36091, dated 8 May 1934 (TBK-3).
 Contract NOs 44507, dated 8 October 1935 (TBK-4).
 Contract NOs 47498, dated 25 March 1936 (TBK-5, 6).
 Contract NOs 58126, dated 15 December 1937 (TBK-7).
 Contract NOs 67051, dated 12 June 1939 (TBK-9, 11, 15).
 Contract NOs 72975, dated 8 May 1940 (TBK-9, 11, 13, 15, 18, 20).

RADIO TRANSMITTING EQUIPMENT

Radio-Transmitters
TBK-3 THRU 20

Models TBM-10, TBK-16 Radio Transmitting Equipments.
NAVSHIPS 900482: Technical Manual for Navy Model TBK-19 Radio-Telegraph Transmitting Equipment.

TYPE CLASSIFICATION
DESIGN COGNIZANCE
PROCUREMENT COGNIZANCE
STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
	TBK-3 (115 or 230 v DC)		
1	Radio Transmitter 52031	24 X 32 X 72	760
1	Motor Generator (115 or 230 v DC)	15-15/32 X 18-7/16 X 74-1/16	700
1	Motor Starter 21158 (115 v DC) or 21159 (230 v DC)	12-9/16 X 14 X 25-1/8	80
1	Transmitter Spare Parts Box	18 X 18-1/8 X 31-1/4	155
1	Motor Generator Armature Box	9-1/2 X 21-3/4 X 33-1/2	185
1	Motor Generator Field Coil Box	9-1/2 X 11-1/2 X 34	83
	TBK-4 (440 v, 60 cps, 3 ph)		
1	Radio Transmitter 52032	24 X 32 X 72	688
1	Rectifier Power Unit 20018	22-7/8 X 23-15/16 X 71-7/8	976
1	Junction Box 23055	11-7/8 X 23-7/16 X 46-1/8	117
1	Remote Control Unit 23084	12-15/16 X 19 X 20	88
1	Auto Transformer 30286	9-3/4 X 11-13/16 X 21-3/4	171
1	Spare Parts Box (w/o junction box spares) or (with junction box spares)	18 X 18-1/8 X 31-1/4	213
	TBK-5 (115 or 230 v DC)		
1	Radio Transmitter 52066	24 X 32 X 72	662
1	Motor Generator Unit	18-9/16 X 18-3/4 X 75	900
1	Starter 21250 (115 v DC) or 21251 (230 v DC)	14-1/2 X 15-1/4 X 28-1/2	90
1	Set of Spare Tubes		
1	Spare Parts Box	15-1/2 X 16-3/8 X 25-1/4	107
1	Spare Parts Box	14-1/2 X 21-1/2 X 33-3/8	164
1	Spare Parts Box	9-1/2 X 10-1/8 X 34-3/4	105
1	Spare Parts Box	8-1/2 X 9 X 23-1/4	65
1	Spare Parts Box	9-3/4 X 10-1/8 X 27	79
	TBK-5 (440 v, 60 cps, 3 ph)		
1	Radio Transmitter 52064	24 X 32 X 72	695
1	Motor Generator Unit	18-9/16 X 18-3/4 X 70-1/8	885
1	Starter 21249	9 X 10-5/8 X 18-3/4	30
1	Set of Spare Tubes		2
1	Spare Parts Box	15-1/2 X 16-3/8 X 25-1/4	107
1	Spare Parts Box	12-1/2 X 21-1/2 X 26-1/4	125
1	Spare Parts Box	9-1/2 X 10-1/8 X 34-3/4	105
1	Spare Parts Box	8-1/2 X 9 X 23-1/4	65
	TBK-6 (230 v DC)		
1	Radio Transmitter 52066	24 X 32 X 72	662
2	Motor Generator Unit	18-9/16 X 18-3/4 X 75	900
2	Starter 21251	14-1/2 X 15-1/4 X 28-1/2	90
1	Power Transfer Unit 23102	11 X 20-1/4 X 39-13/16	75

RADIO TRANSMITTING EQUIPMENT

EQUIPMENT SUPPLIED DATA			
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Remote Control Unit 23100	12-15/16 X 19 X 20	53
1	Set of Spare Tubes		2
1	Spare Parts Box	15-1/2 X 16-3/8 X 25-1/4	115
1	Spare Parts Box	14-1/2 X 22-1/2 X 31-3/8	164
1	Spare Parts Box	9-1/2 X 10-1/8 X 34-3/4	105
1	Spare Parts Box	8-1/2 X 9 X 23-1/4	65
1	Spare Parts Box	9-3/4 X 10-1/8 X 27	79
	TBK-6 (220 v, 60 cps, 2 or 3 ph)		
1	Radio Transmitter 52064	24 X 32 X 72	695
2	Motor Generator Unit (2 or 3 ph)	18-9/16 X 18-3/4 X 70-1/8	885
2	Starter 21252 (3 ph) or 21253 (2 ph)	9 X 10-5/8 X 18-3/4	30
1	Power Transfer Unit 23101	11 X 20-1/4 X 39-13/16	75
1	Remote Control Unit 23099	12-15/16 X 19 X 20	91
1	Set of Spare Tubes		2
1	Spare Parts Box	15-1/2 X 16-3/8 X 25-1/4	110
1	Spare Parts Box	12-1/2 X 21-1/2 X 26-1/4	125
1	Spare Parts Box	9-1/2 X 10-1/8 X 34-3/4	105
1	Spare Parts Box	8-1/2 X 9 X 23-1/4	65
	TBK-6 (220 or 440 v, 25 cps, 3 ph)		
1	Radio Transmitter 52065	24 X 32 X 72	711
2	Motor Generator Unit (220 or 440 v)	18-1/2 X 22-1/16 X 72-1/8	1250
2	Starter 21254 (440 v) or 21259 (220 v)	9 X 10-5/8 X 18-3/4	30
1	Power Transfer Unit 23101	11 X 20-1/4 X 39-13/16	75
1	Remote Control Unit 23099	12-15/16 X 19 X 20	91
1	Set of Spare Tube		2
1	Spare Parts Box	15-1/2 X 16-3/8 X 25-1/4	115
1	Spare Parts Box	12-1/2 X 21-1/2 X 26-1/4	125
1	Spare Parts Box	9-1/2 X 10-1/8 X 34-3/4	105
1	Spare Parts Box	8-1/2 X 9 X 23-1/4	65
	TBK-7 (440 v, 60 cps, 3 ph)		
1	Radio Transmitter 52079	24 X 32 X 72	695
1	Motor Generator Unit	18-9/16 X 18-3/4 X 70-1/8	885
1	Starter 21304	8-1/2 X 11 X 17	30
1	Set of Spare Tubes		2
1	Spare Parts Box	15-1/2 X 16-3/8 X 25-1/4	107
1	Spare Parts Box	12-1/2 X 21-1/2 X 26-1/4	125
1	Spare Parts Box	9-1/2 X 10-1/8 X 34-3/4	105
1	Spare Parts Box	8-1/2 X 9 X 23-1/4	65
	TBK-8, 10, 12 (115 or 230 v DC)		
1	Radio Transmitter 52103 (115 v DC) or 52104 (230 v DC)	24-9/16 X 31-5/8 X 72	629
1	Motor Generator Unit 21330 (115 v DC) or 21331 (230 v DC)	19 X 23 X 74-1/4	1170
1	Magnetic Controller 21333 (115 v DC) or 21334 (230 v DC)	13 X 17 X 20-21/32	80

RADIO TRANSMITTING EQUIPMENT

EQUIPMENT SUPPLIED DATA			
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
	TBK-8, 10, 12 (115 or 230 v DC)		
1	Spare Parts Box	18 X 18 X 36	165
1	Spare Parts Box	8 X 12 X 29	107
1	Spare Parts Box	6 X 6 X 22	47
1	Spare Parts Box	11 X 11 X 33	161
1	Spare Parts Box	9-1/2 X 9-1/2 X 21	92
	TBK-8, 10, 12 (220 or 440 v, 60 cps, 3 ph)		
1	Radio Transmitter 52105	24-9/16 X 31-5/8 X 72	664
1	Motor Generator Unit 21332	19 X 23 X 71-1/16	1150
1	Magnetic Controller 21335 (220v) or 21336 (440v)	9 X 16 X 19-21/32	48
1	Spare Parts Box	18 X 18 X 36	165
1	Spare Parts Box	8 X 12 X 23	87
1	Spare Parts Box	6 X 6 X 22	47
1	Spare Parts Box	11 X 11 X 33	161
	TBK-9 (115 or 230 v DC)		
1	Radio Transmitter 52126 (115 v) or 52127 (230 v)	24 X 32 X 72	720
1	Motor Generator Unit 21401 (115 v) or 21402 (230 v)	20-1/4 X 20-1/2 X 78-7/8	1062,
1	Starter 21409 (115 v) or 21410 (230 v)	16-7/8 X 17-1/2 X 26-1/4	110
		15-7/8 X 17-1/2 X 26-1/4	95
1	Set of Spare Tubes		2
1	Spare Parts Boxes	15-3/4 X 16-3/4 X 25-3/8	117
1	Spare Parts Boxes	9 X 23-1/2 X 34	164
1	Spare Parts Boxes	8 X 9-1/2 X 30	103
1	Spare Parts Boxes	6-5/8 X 8-1/4 X 24-3/4	54
1	Spare Parts Boxes	10-1/4 X 12-3/4 X 32	106
	TBK-9 (220 or 440 v, 60 cps, 3 ph)		
1	Radio Transmitter 52128	24 X 32 X 72	720
1	Motor Generator Unit 21403	20-3/8 X 20-1/2 X 78-7/8	1033
1	Starter 21411 (220 v) or 21412 (440 v)	11-5/8 X 17 X 24-1/4	80
		11-5/8 X 15 X 21-1/4	50
1	Set of Spare Tubes		2
1	Spare Parts Box	15-3/4 X 16-3/4 X 25-3/8	122
1	Spare Parts Box	9 X 23-1/2 X 34	110
1	Spare Parts Box	8 X 9-1/2 X 30	103
1	Spare Parts Box	6-5/8 X 8-1/4 X 24-3/4	54
	TBK-11 (220 or 440 v, 25 cps, 3 ph)		
1	Radio Transmitter 52169	24 X 32 X 72	810
1	Land Line Control Unit 23217	10-3/8 X 20-7/16 X 20-11/16	81
1	Power Transfer Panel 24084-A	11 X 20-1/4 X 39-13/16	108
2	Motor Generator Unit 21521	20-1/2 X 21-3/4 X 78-1/2	1250
2	Magnetic Controller 21609 (220 v) or 21512 (440 v)	11-5/8 X 17 X 23-1/4	80
1	Set of Spare Tubes		2.5
1	Spare Parts Box	15-3/4 X 16-3/4 X 25-3/8	143

TBK-3 THRU 20

RADIO TRANSMITTING EQUIPMENT

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
	TBK-11 (220 v, 60 cps, 1 or 3 ph)		
1	Radio Transmitter 52170	24 X 32 X 72	797
1	Land Line Control Unit 23216	10-3/8 X 20-7/16 X 20-11/16	81
1	Power Transfer Panel 24084-A	11 X 20-1/2 X 39-13/16	108
2	Motor Generator Unit 21671 (1 ph) or 21522 (3 ph)	20-3/8 X 20-1/2 X 74-21/32	1100
2	Magnetic Controller 21644 (1 ph) or 21610 (3 ph)	11-5/8 X 17 X 24-1/4 11-5/8 X 17 X 23-1/4	80 80
1	Set of Spare Tubes		2.5
1	Spare Parts Box	15-3/4 X 16-3/4 X 25-3/8	143
	TBK-13 (115 or 230 v DC)		
1	Radio Transmitter 52217 (115 v) or 52218 (230 v)	24 X 32 X 72 24 X 32 X 72	740 780
1	Motor Generator Unit 21675 (115 v) or 21676 (230 v)	20-5/16 X 20-3/8 X 78-13/16	1275
1	Magnetic Controller 21666 (115 v) or 21667 (230 v)	13-3/8 X 16 X 22-1/2	70
1	Set of Spare Tubes		2
1	Spare Parts Box	15-3/4 X 16-3/4 X 25-3/8	120
1	Spare Parts Box	11 X 17 X 28	121
1	Spare Parts Box	8-1/2 X 10 X 30	110
1	Spare Parts Box	6-3/4 X 8-1/2 X 24-1/2	55
1	Spare Parts Box	10-1/4 X 12-3/4 X 32	105
	TBK-13 (220 or 440 v, 60 cps, 3 ph)		
1	Radio Transmitter 52171	24 X 32 X 72	780
1	Motor Generator Unit 21677	20-3/4 X 22-1/8 X 74-21/32	1255
1	Magnetic Controller 21668 (220 v) or 21669 (440 v)	9-3/16 X 16-5/8 X 18-3/4	50
1	Set of Spare Tubes		2
1	Spare Parts Box	15-3/4 X 16-3/4 X 25-3/8	120
1	Spare Parts Box	11 X 17 X 28	121
1	Spare Parts Box	8-1/2 X 10 X 30	110
1	Spare Parts Box	6-3/4 X 8-1/2 X 24-1/2	55
	TBK-14 (115 or 230 v DC)		
1	Radio Transmitter 52103 (115 v) or 52104 (230 v)	24-9/16 X 31-5/8 X 72	629
1	Motor Generator Unit 21330-A, B, C (115 v) or 21331-A, B, C (230 v)	19 X 23 X 74-1/4	1170
1	Magnetic Controller 21333 (115 v) or 21334 (230v)	13 X 17 X 20-21/32	80
1	Spare Parts Box	18 X 18 X 36	165
1	Spare Parts Box	8 X 12 X 29	107
1	Spare Parts Box	6 X 6 X 22	47
1	Spare Parts Box	11 X 11 X 33	161
1	Spare Parts Box	9-1/2 X 9-1/2 X 21	92

RADIO TRANSMITTING EQUIPMENT

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
	TBK-14 (220 or 440 v, 60 cps, 3 ph)		
1	Radio Transmitter 52105	24-9/16 X 31-5/8 X 72	664
1	Motor Generator Unit 21331-A, B, C	19 X 23 X 71-1/16	1150
1	Magnetic Controller 21336	9 X 16 X 19-21/32	48
1	Spare Parts Box	18 X 18 X 36	165
1	Spare Parts Box	8 X 12 X 23	87
1	Spare Parts Box	6 X 6 X 22	47
1	Spare Parts Box	11 X 11 X 33	161
	TBK-15 (220 v, 60 cps, 3 ph)		
1	Radio Transmitter 52170	24 X 32 X 72	797
1	Land Line Control Unit 23216	11-1/16 X 20-5/16 X 20-3/4	81
1	Power Transfer Panel 24084-A	11 X 20-1/4 X 39-13/16	108
2	Motor Generator Unit 21677	20-3/8 X 20-1/2 X 74-21/36	1105
2	Magnetic Controller 21668	9-3/16 X 16-5/8 X 18-3/4	50
1	Set of Spare Tubes		2.5
1	Spare Parts Box	15-3/4 X 16-3/4 X 25-3/8	140
	TBK-16 (220 or 440 v, 50 or 60 cps, 3 ph)		
1	Radio Transmitter 52170	24 X 32 X 72	789
1	Land Line Control Unit 23216	11 X 20-3/4 X 21-5/16	81
1	Rectifier Power Unit 20228	24 X 32 X 72	1000
1	Set of Spare Tubes		2.6
1	Spare Parts Box	29-1/4 X 24 X 36	123
1	Spare Parts Box	15-7/8 X 18 X 24	80
	TBK-17 (115 or 230 v DC)		
1	Radio Transmitter 52103 (115 v or 52104 (230 v))	24-9/16 X 31-5/8 X 72	629
1	Motor Generator Unit 21330-A (115 v) or 21331-A (230 v)	19 X 23 X 73-3/8	1170
1	Magnetic Controller 211104 (115 v) or 211105 (230 v)	10-1/2 X 20-1/2 X 23 10-1/2 X 15-1/2 X 23	95 85
1	Spare Parts Box	15 X 18 X 18	
1	Spare Parts Box	8 X 12 X 29	105
1	Spare Parts Box	6 X 6 X 22	47
1	Spare Parts Box	11 X 11 X 33	161
1	Spare Parts Box	9-1/2 X 9-1/2 X 21	92
	TBK-17 (220 or 440 v, 60 cps, 3 ph)		
1	Radio Transmitter 42105	24-9/16 X 31-5/8 X 72	664
1	Motor Generator Unit 21332-A	18-7/8 X 22-9/16 X 70-1/8	1150
1	Magnetic Controller 211106 (220v) or 211107 (440v)	8-5/16 X 9-3/4 X 14	40
1	Spare Parts Box	15 X 18 X 18	
1	Spare Parts Box	8 X 12 X 23	87
1	Spare Parts Box	6 X 6 X 22	47
1	Spare Parts Box	11 X 11 X 33	161

RADIO TRANSMITTING EQUIPMENT

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIP	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
	TBK-18 (440 v, 60 cps, 3 ph)		
1	Radio Transmitter 52171	24 X 32 X 72	780
1	Motor Generator Unit 21677	20-3/4 X 22-1/8 X 74-21/32	1255
1	Magnetic Controller 21669	9-3/16 X 16-5/8 X 18-3/4	50
1	Set of Spare Tubes		2
1	Spare Parts Box	15-3/4 X 16-3/4 X 25-3/8	108
1	Spare Parts Box	11-3/4 X 14-3/4 X 17-3/4	93
1	Spare Parts Box	8-1/2 X 10 X 30	110
1	Spare Parts Box	6-3/4 X 8-1/2 X 24-1/2	55
	TBK-19 (230 v DC)		
1	Radio Transmitter 52104	24-9/16 X 31-5/8 X 72	629
1	Motor Generator Unit 211340	18-1/16 X 18-1/8 X 62-3/8	769
1	Magnetic Controller 211105	10-1/2 X 15-1/2 X 23	63
1	Spare Parts Box	15 X 19 X 25	150
1	Spare Parts Box	9-3/4 X 19 X 19-3/4	86
2	Spare Parts Box	9 X 10 X 24-1/2	78
1	Spare Parts Box	9 X 10 X 24-1/2	66
	TBK-19 (220 or 440 v, 60 cps, 3 ph)		
1	Radio Transmitter 52105	24-9/16 X 31-5/8 X 72	664
1	Motor Generator Unit 211286	17-13/16 X 18-1/8 X 58	727
1	Magnetic Controller 211106 (220 v) or 211107 (440 v)	8-5/16 X 10-3/8 X 14	30
1	Spare Parts Box	15 X 19 X 25	150
1	Spare Parts Box	9-3/4 X 19 X 19-3/4	86
2	Spare Parts Box	9 X 10 X 24-1/2	78
	TBK-20 (115 or 230 v DC)		
1	Radio Transmitter 52217 (115 v) or 52218 (230 v)	24 X 32 X 72 24 X 32 X 72	740 780
1	Motor Generator Unit 21675 (115v) or 21676 (230v)	20-5/16 X 20-3/8 X 78-13/16	1275
1	Magnetic Controller 211231 (115v) or 211232 (230v)	10-3/16 X 15 X 20-1/4 10-3/16 X 15 X 20-1/4	68 76
1	Set of Spare Tubes		2
1	Spare Parts Box	15-3/4 X 16-3/4 X 25-3/8	123
1	Spare Parts Box	11-3/4 X 17-3/4 X 17-3/4	123
1	Spare Parts Box	8-1/2 X 10 X 30	110
1	Spare Parts Box	6-3/4 X 8-1/2 X 24-1/2	55
1	Spare Parts Box	10-1/4 X 12-3/4 X 32	107