

GLINT NO. 362

February 10, 1970

Revised January 12, 1971

CATEGORIZED DRAWING NUMBERS FOR 60-FT. ANTENNAS - MECHANICAL

K.M. Price & W.S. Scott

SummaryQuantity RequiredName or DescriptionDwg. No.

1 2 3 4 5

1					60-ft. Antenna Assembly	RE-500-1
	1				<u>Foundation (p. 2)</u>	RE-492
					(Foundation - TERTIO)	(RC-162)
	1				<u>Pedestal Assembly (p. 2)</u>	RE-326
		1			Yoke - Pedestal Stow Lock	
		1			Hub - Pedestal Stow Lock	
	1				<u>Yoke Assembly (p. 4)</u>	RE-388
		1			Polar Axle Sub-Assembly (p. 4)	RE-354
		2			Declination Axle Vee Sub-Assembly (p. 4)	RE-385
		1			Hour Angle Rim Sub-Assembly (p. 5)	RE-386
		2			Chain Tensioner Sub-Assembly (p. 5)	RE-387
		2			Polar Bearing Assembly (p. 6)	RE-500-4
		1			Declination Drive System (p. 7)	RE-500-3
			1		Declination Brake System	
	1				<u>Reflector Sub-Assembly (p. 3)</u>	RE-491
					(Reflector Sub-Assembly - TERTIO)	(RE-443)
		1			Declination Ring (p. 8)	RE-414 - 1 & 2
			2		Stub Axles (p. 8)	RE-444
			2		Chain Tensioner Sub-Assembly (p. 8)	RE-415 & RE-416
		1			Hub Panel Sub-Assembly (p. 9)	RE-537
			1		Hub Sub-Assembly (p. 9)	RE-353
					(Hub Sub-Assembly - TERTIO)	(RC-140)
			56		Panel Sub-Assembly (p. 10)	RC-154
			1		Feed Support (p. 11)	RC-230
			1		Feed Box (p. 11)	RC-234
			1		Feed Rotator Box (p. 11)	RC-262
		2			Declination Bearing Assembly (p. 12)	RE-500-5
1	1				<u>Hour Angle Drive System (p. 13)</u>	RE-500-6 & 7

Tooling (pp. 14-19)

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Quantity Required					Name or Description	Dwg. No.
1	2	3	4	5		
1					<u>Foundation</u>	RE-492
					(Foundation - TERTIO*)	(RC-163)
					(Foundation Leg Baseplates - TERTIO*)	(RC-242)
	1				Anchor Plate - East Leg	RC-493
	1				" " - West Leg	RC-494
	1				" " - South Leg	RC-495
	1				" " - H.A. Drive Sprocket Base	RC-496
	1				" " - H.A. Drive Motor Base	RD-551
	13				1 1/4" Foundation Studs w/Nuts	RA-240
	9				Spacer Studs	RC-497
					(Stud Anchor Plates - TERTIO*)	(RB-241)
1					<u>Pedestal Assembly</u>	RE-326
					Pedestal - Basic Outline Data	RE-360
	1				Pedestal - East Leg	RD-281
		1			Gusset - Jacking	RC-324
	1				Pedestal - West Leg	RD-282
		1			Gusset - Jacking	RC-324
	1				Pedestal - East Fibula	RD-283
		1			Gusset - Jacking	RC-325
	1				Pedestal - West Fibula	RD-284
		1			Gusset - Jacking	RC-325
	1				Top Vee	RC-286
		2			Plate	RC-285
	1				Bottom Vee	RC-290
		1			East Plate	RC-287
		1			West Plate	RC-288
		1			Rear Plate	RC-289
		1			Jacking Pad	RB-328
	1				Top Vee Gusset Plate 1"	RR-293-A
	1				Top Vee Gusset Plate 1/2"	RR-293-B
	1				Bottom Vee Gusset Plate	RR-294
	3				Foot Plate	RC-519
	1				South Leg	RE-319
		2			South Leg Channels	RC-317
		2			South Leg Gusset Plate	RE-318
	2				Hand Rails - E & W Legs	RC-609
	1				Hand Rail - S Leg	RC-610
		3			Hand Rail Support	RC-612
		18			Step Support Angles	RC-613

label means the drawing
 *TERTIO - applies to the TERTIO antenna only. TERTIO was the first antenna built and is different in some respects from the others.

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Quantity Required1 2 3 4 5Name or DescriptionDwg. No.

1

Yoke Assembly

RE-388

Yoke - Basic Outline Data

RE-361

1

Polar Axle Sub-Assembly Machining Det.

RE-354

1

Polar Axle Sub-Assembly Weldment Det.

RE-331

1

Top Ring Plate

RC-332-A

1

Bottom Ring Plate

RC-332-B

2

Top Arm Gusset Plate

RD-333

2

Top Terminal Spoke Gusset Plate

RD-333

5

Top Spoke Gusset Plate

RD-334

1

Top Center Spacer Gusset Plate

RC-335

2

Top Side Spacer Gusset Plate

RC-336

2

Bottom Leg Gusset Plate

RE-337

2

Bottom Terminal Strut Gusset Plate

RE-338

5

Bottom Strut Gusset Plate

RE-339

1

Bottom Center Spacer Gusset Plate

RC-340

1

Bottom Side Spacer Gusset Plate

RD-341-A

1

Bottom Side Spacer Gusset Plate

RD-341-B

2

Top Ring Shelf Plate (Arm)

RC-342-A

2

Top Ring Shelf Plate (Term. Spoke)

RC-342-B

3

Top Ring Shelf Plate (Center Spoke)

RC-342-C

1

Top Ring Shelf Plate (Center Spacer)

RC-342-D

2

Top Ring Shelf Plate (Side Spacer)

RC-342-E

1

Top Ring Shelf Plate (Outer Spoke)

RC-343-A

1

Top Ring Shelf Plate (Outer Spoke)

RC-343-B

2

Bottom Ring Shelf Plate (Leg)

RC-344

2

Bottom Ring Shelf Plate (Term. Strut)

RC-345

2

Bottom Ring Shelf Plate (Outer Strut)

RC-346

3

Bottom Ring Shelf Plate (Center Strut)

RC-347

1

Bottom Ring Shelf Plate (Center Spacer)

RC-348

2

Bottom Ring Shelf Plate (Side Spacer)

RC-349-A

2

Bottom Ring Shelf Plate (Side Spacer)

RC-349-B

10

Pipe Saddle

RC-350

6

Top Bearing Gusset Plate

RC-351

3

Bottom Bearing Gusset Plate

RC-352

2

Lifting Bracket

RC-504

2

Declination Axle Vee Sub-Assembly

RE-385

2

Web Plate

RE-384

1

North Plate

RC-301-M

1

South Plate

RC-301-N

1

Center Stiffener

RC-301-P

1

North Jacking Plate

RC-301-Q

1

South Jacking Plate

RC-301-R

1

Doubler Plate

RC-301-S

1

Doubler Plate

RC-301-T

Glint No. 362-5
2/10/70

Quantity Required					Name or Description	Dwg. No.
1	2	3	4	5		
		1			<u>Four Angle Rim Sub-Assembly</u>	RE-386
			4		Rim Plate	RC-364
			6		Top Strong Back	RC-362
			6		Bottom Strong Back	RC-362
			5		Spoke-Strut Gusset Plate	RC-375
			4		Strong Back Extension	RD-363-B
		2			<u>Chain Tensioner Sub-Assembly</u>	RE-387
			1		Elastomer Box	RD-389
				1	Bottom Plate	RD-389
				2	End Plate	RD-389
				2	Side Plate	RD-389
			1		Strong Back Extension	RD-363-A
	2				Arm (East and West)	RC-365
	1				East Leg	RC-366
	1				West Leg	RC-367
	1				East Terminal Spoke	RC-368
	1				West Terminal Spoke	RC-369
	2				Terminal Strut (East and West)	RC-370
	1				East Edge Piece	RC-371
	1				West Edge Piece	RC-372
	5				Pipe Spoke	RC-373
	5				Pipe Strut	RC-374
	10				Rim - Spoke Gusset Plate	RD-376
	2				Rim - Terminal Spoke Gusset Plate	RC-377
	2				Edgepiece - Terminal Spoke Gusset	RC-378
	2				Edgepiece - Rim Gusset Plate	RC-379
	2				Top Rim Gusset Plate	RE-380
	2				Arm - Leg Gusset Plate	RD-383
	2				Terminal Spoke Spacer Plate	RC-381-AA
	2				Edgepiece Spacer Plate	RC-381

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Quantity Required

1 2 3 4 5 6 7

Name or Description

Drug No.

Polar Bearing Assemblies

1	Top Polar Bearing Assembly	RE-500-4
1	Top Polar Bearing Housing - Fin. Mach.	RE-306
1	Top Polar Bearing Housing - Weldment	RC-304
1	Plate	RC-301-D
1	Plate	RC-301-E
2	Gusset Plate	RC-308
1	Block - Rough Machine	RC-303
1	Block - Flame Cut	RC-302
1	Retainer Ring	RC-357
1	Sleeve - Modified	RC-358
1	Front Spacer	RC-355
1	Rear Spacer	RC-356
1	Lock Plate	RB-359
4	Shim - Shaft (Split Spacer Ring)	RC-482
A/R*	Shim - Housing	RC-534

QTY	DESCRIPTION	PART NO.
1	Bottom Polar Bearing Assembly	RE-500-4
1	Bottom Polar Bearing Housing - Fin.Mach	RE-307
1	Bottom Polar Bearing Housing - Weldment	RC-305
1	Plate	RC-301-F
1	Plate	RC-301-G
1	Block - Rough Machine	RC-303
1	Block - Flame Cut	RC-302
2	Gusset	RC-308
1	Retainer Ring	RC-357
1	Sleeve - Modified	RC-358
1	Front Spacer	RC-355
1	Rear Spacer	RC-356
1	Lock Plate	RE-359
4	Shim-Shaft (Split Spacer Ring)	RC-482
A/R *	Shim-housing	RC-533

* As required.

Glint No. 362-7
2/10/70

Quantity Required
1 2 3 4 5 6

Name or Description

Dwg. No.

1						Declination Drive System	RE-500-8
	2					Compression plate	RC-425
	8					1 1/2" Bolt	RC-427
	2					Chain anchor clamp	RC-426
	2					Chain anchor plate and pin	RC-413
	1					Drive sprocket shaft	RC-455
	6					Spacers	RC-505 A & B
	1					Sprocket Box - Machine	RE-456
		1				Sprocket Box - Weldment	RE-457
			2			End Plate	RE-458
			1			Bottom Plate	RE-459
			2			Bottom Pad	RC-301-IV
			2			Side Plate	RC-301-V
			4			Spacer Block	RC-301-U
	2					11" Angle Fitting	RC-498
	2					Right Angle Fitting	RC-499
	1					Gear Reducer Mounting Plate	RC-508
		1				Mounting Gusset	RE-506
		1				Mounting Gusset	RE-507
						Spacer bar	RC-502
	1					Declination brake system	RE-500-8
		2				Brake shoe	RC-501
		2				Brake pad	RC-525
		2				Mounting brackets	RC-529
		A/R				Rectangular Shim	RC-530
		A/R				Square washer	RC-531
		4				Blocks	RC-503
		2				Mounting bracket - cylinder	RC-532

* Not installed

Clint No. 362-3
2/10/70

Quantity Required
1 2 3 4 5 6

Name or Description

Dwg. No.

1

Reflector Sub-Assembly
(Reflector Sub-Assembly - TERTIO)

RE-491

1

Declination Ring (2 sheets)

(RE-433)

2

Stub axle - Fin. Mach.

RE-414 - 1 & 2

2

Stub axle - Weldment

RE-444-W+E

1

Base Plate

RE-445

1

Hub Gusset - Outer

RE-446

1

Angled Loc. Plate

RE-447

1

Back Up Plate

RE-448

6

Angle Gusset - Spacer

RE-449

1

Shelf Plate

RC-450

1

Axle - Rough Machine

RC-451

RC-452

3

Rim Plate

RC-412

2

Chain Tensioner - North & South

RE-415 & 416

2

Side Plate

RE-421-A & B

1

Bottom Plate

RC-301-X

1

Plate (North only)

RC-301-Y

2

End Plate

RC-301-Z

5

Strongback

RC-417

10

Retainer - Rim

RC-418

6

Gusset - Spoke

RC-419

12

Spoke

RC-420

2

Strongback Filler

RC-422

Glint No. 362-9
2/10/70

Quantity Required					Name or Description	Dwg. No.
1	2	3	4	5		
1					Hub-Panel Sub-Assembly	RE-537
	1				Hub	RE-353
					(Hub-TERTIO	RC-148)
					(Hub Pipes - TERTIO	RC-149)
					(Hub Center - TERTIO	RC-150)
					(Upper Octagon Stiffener - TERTIO	RA-193)
					(Retainer Ring - TERTIO Mod.	RC-429)
					(" " " "	RC-430)
					(Spoke Gusset " "	RC-431)
					(Stub Axle Gusset " "	RC-432)
					(Base Plate - Shelf " "	RE-446-A)
					(Storage Bracket " "	RC-435)
					(Clamp Plate " "	RC-436)
	112				Top Quill	Glint 268
	56				Bottom Quill	" 268
	1				Theodolite Stand	
	2				Stow Lock Bracket	RC-461
	2				Stiffener	RC-460
	4				Gusset	RC-432
	2				Base Plate - Shelf	RE-446-B
	2				Seal Plate (omitted for drainage)	RE-353
	112				Top Quill Sleeves	

Glnt No. 362-10
2/10/70

Quantity Required
1 2 3 4 5

Name or Description

Dwg. No.

56

Panel Sub-Assembly

Truss layout

Load Diagram

Frame

Profile

RC-154

RC-131

RC-125

RC-121

RC-120

1

Spines (Panel Frame)

Joint 3-8

Joint 5-3

Joint 10-8

Joint 16-8

Joint 22-8

RC-155

RC-199

RB-132

RC-145 & 145A

RC-157

RC-147

2

Surface Sheets (Layout)
Templates

RC-167

RA-214

1

Panel Stiffeners

Gusset drilling template

6

Gusset plates

Rib template

11

Panel rib

RC-166

RC-159

RC-158

RC-135

RC-134

28

Inner Panels

Inner panel rib detail

Inner panel ribs

RA-203

RB-202

RB-200

2

Center Filler Sections

Glint No. 362-11
2/10/70

<u>Quantity Required</u>							<u>Name or Description</u>	<u>Dwg. No.</u>
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>		
				392			Panel Surface interconnection plates	
				55			G2 interconnection tubes	
				55			G3 " "	
				55			G4 " "	
				55			G4-T3 " "	
				55			T3-T3 " "	
				55			U2 " "	
				A/R			Antitorsional Member	RD-615

1	<u>Feed Support</u>	RC-230
	Top Joint	RC-231
	Bottom Joint	RC-232
	Schematic B	RC-235

1	<u>Feed Box</u>	RC-234
1	<u>Feed Rotator Box</u>	RC-262
1	Cover	RC-263

Glint No. 362-12

2/10/70

Rev. 1/12/71

Quantity Required1 2 3 4 5 6 7Name or DescriptionDwg. No.

2

Declination Bearing Assembly

RE-500-5

1

Dec. Bearing Housing - Fin. Mach.

RE-440

1

East Dec. Bearing Housing - Weldment

RC-443

1

Plate

RC-301-K

1

Plate

RC-301-L

1

Bolting (Anchor) Plate

RC-428

1

Block - Rough Mach.

RC-441

1

Block - Flame Cut

RC-411

1

Retainer Ring

RC-475

1

Sleeve - Modified

RC-479

1

Spacer Ring - Inner

RC-477

1

Spacer Ring - Outer

RC-476

1

Seal Ring - Front

RC-480

1

Lock Plate

RC-478

4

Shim - Shaft (Split Spacer Ring)

RC-401

Shim Housing

RC-535

2

Compression Plate

RC-391

8

1 1/8" Bolt

RB-392

2

Chain Anchor Clamp

RC-390

2

Chain Anchor Plate & Pin

RC-382

Glint No. 362-13
2/10/70
Rev. 1/12/71

Quantity Required							Name or Description	Dwg. No.
1	2	3	4	5	6	7		
1							<u>Hour Angle Drive Assy.</u>	RE-500-6 & 7
	1						Mounting Assembly - Sprocket Box to Base	RE-485
		1					Sprocket Box Sub-Assy. Mach.	RE-490
			1				Sprocket Box Sub-Assy. Weldment	RE-487
				2			Side Plate	RC-488
				2			Shelf Plate	RE-301-VV
				1			Base Plate	RC-489
					1		Rect. Plate	RC-301-TT
				2			Ridge Plate	RC-301-VV
				2			Shelf-Plate Pad	RC-301-WW
				2			Base Plate Pad	RC-301-XX
				1			Drive Sprocket Shaft	RC-455
				6			Spacers on Shafts	RC-505-C & D
		6					Gusset	RC-486
		2					Switch mounting angles	RC-618
		1					Angle Base - Sub Assembly	RE-468
			2				Pad	RC-301-LL
			1				Base Plate	RC-469
			1				Top Plate	RC-470
			2				Side Plate	RC-471
			1				Spacer Plate	RC-472
			2				Front Gusset	RC-473
			2				Rear Gusset	RC-474
				1			Rectangular Plate	RC-301-RR
	2						Sprocket box to footplate 8 H 34 beams - 185"	
	4						Gussets on H beams (3/8" x 7 1/2" x 9')	
	4						Gussets on sprocket box (1" x 8" x 9")	
	2						Gusset A	RB-597
							<u>Hour Angle Drive Motor Plate Sub-Assy.</u>	RE-500-7
	1						Slew Motor Bed Plate	RE-552
		1					Mounting Bracket - Right Angle Gear Box	RC-553
		1					Motor adjusting plate	RD-554
		1					Drive shafts - change gear	RB-555
		1					Clutch bracket	RD-556
							<u>Hour Angle Brake System</u>	
			4				Blocks	RC-503
			4				Brake shoes	RC-501
			2				Mounting brackets - air cylinders	RC-532

* omitted from antennas (2-9-71)

Clint No. 362-14
2/10/70

<u>Name or Description</u>	<u>Dwg. No.</u>
<u>TOOLING</u>	
<u>Pedestal</u>	
Vee Jig Assembly	RD-300
Pipe support plate	RC-295
Lifting plates	RC-296
Tooling pipe	RC-297
Pipe insert	RC-298
Angle support	RC-309
Plumb bob inserts	RC-315
Spreader Bar Assembly	RC-312
Tee end	RC-310
Wedge end	RC-311
Angle arm - protractor	RC-313
Base arm - protractor	RC-314
Support angle S - legs	RC-320
Support angles - fibula	RC-321
Leg	RC-322
Temporary pedestal support	RC-327
(Leg holding plates - TERTIO)	(RC-329)

Glint No. 362-15
2/10/70

<u>Name or Description</u>	<u>Dwg. No.</u>
<u>Tooling</u>	
<u>YOKE</u>	
Vee block and hanger - Polar axle parrot tooling	RC-316
Parrot shaft and end	RC-323
Target holders - polar axle	RC-330
Target holder - polar axle	RC-536
Parrot hanger	RC-538
Grinding fixture	RE-528
Ratio Motor Mounting for Grinding	
Mounting bracket tooling	RC-520
Top plate - mounting bracket	RC-521
Bottom plate - " "	RC-522
Gusset plate - " "	RC-523
Center plate - " "	RC-524
Pantograph	RR-617
Bottom I beam support	RC-601
Tubing strut	RC-602
Indicator mounting angle	RC-603
Caster standoff	RC-604
Fixture arbor	RC-605
Top I beam support	RC-606
Scope mounting bracket	RC-607

Clint No. 362-16
2/10/70

<u>Name or Description</u>	<u>Dwg. No.</u>
<u>Tooling</u>	
<u>YOKE ASSEMBLY FIXTURE</u>	
Foundation	RC-243
5/8" foundation bolts	RC-244
Foundation plates	RC-245
Foundation plate	RC-246
Leveling plate	RC-247
Anchor plate	RB-248
Foundation plate - rim	RC-249
Angle support plate	RB-250
Channel cover plate - rim	RB-251
Top plate - rim support	RB-252
Bottom plate - rim support	RB-253
Dummy declination bearing	RC-254
Dummy declination axle	RC-255
Measuring pin - housing	RB-256
Measuring pin	RB-257
Recessed nut	RB-258
Stub axle	RC-259
Arm	RC-260
Conical plug	RC-291
Dummy polar bearing	RC-292
 Yoke rim burning arm	 RR-423

Clint No. 362-17
2/10/70

<u>Name or Description</u>	<u>Dwg. No.</u>
<u>Tooling</u>	
<u>DECLINATION</u>	
Target - Declination bearing extension	RC-526
Measuring arm	RC-527
Declination extender tube	RC-557
Declination measuring arm (76.50 inch)	RC-611
Telescope mounting	RD-616
Sawhorse	RR-424
Foundation	RE-483
Plate	RC-484
<u>DECLINATION FAB. FIXTURE</u>	
Dec. Ring Assy. Fixture	RR-404
Foundation layout	RE-462
Center plate	RC-463
Stub axle clamp plate	RC-464
Chain tensioner clamp plate	RC-465
Riser	RC-466
Adjusting angle	RC-467
Sleeve	RC-393
Scope holder	RC-394
Target holder	RC-395
Bearing bridge	RC-396
Bridge extension	RC-397
Bridge	RC-398
Clamp	RC-399
Short shelf angle	RC-400
Long shelf angle	RC-401
Base	RE-402
Spacer	RC-403
Gage block	RC-434
Strongback template	RC-454

2/10/70

<u>Name or Description</u>	<u>Dwg. No.</u>
<u>Tooling</u>	
<u>PANELS</u>	
Table for 60-ft. panels	RC-118
Parrot for 60-ft. table	RC-119
Panel rib template	RC-123
Panel rib template	RC-135
Upper quillsetter assembly	RC-140
Upper quillsetter parts	RC-141
Lower " "	RC-142
Lower " assembly	RC-143
Panel sheet templates	RA-214
U-1 adjusting member	RB-233

MISCELLANEOUS

Boss for precision leveling	RA-097
Theodolite stand and footplate	RC-126
Automatic level mount	RA-139
Circle cutting guide	RC-614

Match plate, dec. chain anchor	RC-405
" " yoke " "	RC-406
" " dec. " " clamp	RC-407
" " yoke " " "	RC-408
Nut lock pin, 1 1/2" dec. chain anchor clamp	RC-409
Nut lock pin, 1 1/8" yoke chain anchor clamp	RC-410

Glint No. 362-19

2/10/70

<u>Name or Description</u>	<u>Dwg. No.</u>
<u>Booling</u>	
<u>GENERAL SITE MAPS</u>	
Heliopolis 1 in 600 map	RC-186
Heliopolis workshop area	RC-198
Trees	RC-228
Survey of Merryvale (W. boundary of Heliopolis)	RE-229
Heliopolis 1 in 300 map	RD-280
Heliopolis planting 1-1200	RC-619
" " 1-300	RC-620
Radio Telescopes at Site 515	RA-710
Heliopolis 1 in 2400 map	RC-711