

TECHNICAL MANUAL

**UNIT MAINTENANCE
REPAIR PARTS AND SPECIAL TOOLS LIST**

**LANDING CRAFT UTILITY
LCU 1667 THROUGH 1670
NSN 1905-00-168-5764**

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

* TM 55-1905-219-20P-1, supersedes TM 55-1905-219-20P-1, dated 9 July 1984.

HEADQUARTERS, DEPARTMENT OF THE ARMY
29 JANUARY 1993

TECHNICAL MANUAL

NO. 55-1905-219-20P-1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 29 January 1993

TECHNICAL MANUAL
Unit Maintenance
Repair Parts and Special Tools List
for
**LANDING CRAFT UTILITY
LCU 1667 THROUGH 1670
NSN 1905-00-168-5764**

Current as of 1 August 1992

NOTE:

This manual is printed in two volumes as follows:

TM 55-1905-219-20P-1, consisting of Table of Contents, Section I and Section II Functional Groups 01 through 13).

TM 55-1905-219-20P-2, consisting of Table of Contents, Section I and Section II Functional Groups 13 through 20), Section III, and Section IV.

The Table of Contents, Section I and IV are applicable to the -1 and -2 volumes.

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes, or if you know of a way to improve these procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual directly to: Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. You may also submit your recommended changes by E-mail directly to <mpmt%avma28@st-louis-emh7.army.mil>. A reply will be furnished directly to you. Instructions for sending an electronic 2028 may be found at the back of this manual immediately preceding the hard copy 2028.

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited

TABLE OF CONTENTS

	PAGE	ILLUS/ FIGURE
Section I	INTRODUCTION1	
Section II	Repair Parts List 1-1	
Group 01	Propulsion System	
	Marine Gear Installation 1-1	1
	Marine Gear 2-1	2
	Marine Gear Selector Valve 3-1	3
	Control Station and Articulator 4-1	4
	Control Unit and Linkage 5-1	5
	Shutdown Head and Linkage 6-1	6
	Engine Throttle Linkage 7-1	7
	Variable Speed Governor 8-1	8

*This manual supersedes TM 55-1905-219-20P-1, dated 9 July 1984.

	PAGE	ILLUS/ FIGURE
Governor Housing Assembly	9-1	9
Air Intake	10-1	10
Ventilation	11-1	11
Blower Assembly	12-1	12
Blower Coupling	13-1	13
Fuel Pump	14-1	14
Fuel Lines	15-1	15
Fuel Strainer	16-1	16
Fuel Filter	17-1	17
Fuel Injectors	18-1	18
Dual Oil Filter	19-1	19
Marine Gear Oil Cooler Lines	20-1	20
Oil Cooler	21-1	21
Raw Water Pump	22-1	22
Expansion Tank	23-1	23
Water Connections	24-1	24
Water Manifold	25-1	25
Thermostat and Housing	26-1	26
Generator and Regulator Mounting	27-1	27
Generator	28-1	28
Tachometer Drive	29-1	29
Instrument Panel	30-1	30
Alarm System Switches	31-1	31
Crankshaft Pulley	32-1	32
Balance Weight Cover	33-1	33
Engine Lift Brackets and Support	34-1	34
Exhaust Manifolds	35-1	35
Rocker Arm Covers	36-1	36
Injector Controls	37-1	37
Flywheel and Housing	38-1	38
Camshaft Assembly (Right and Left Bank)	39-1	39
Valve Operating Mechanism	42-1	42
Exhaust Valve Arrangement	43-1	43
Cylinder Head	44-1	44
Oil Pan and Dipstick	45-1	45
Lube Oil Regulator and Relief Valve	46-1	46
Lube Oil Pump	47-1	47
Oil Distribution System	48-1	48
Pistons, Connecting Rods and Liners	49-1	49
Crankshaft and Bearing	50-1	50
Cylinder Block	51-1	51
Starting Aid	52-1	52
Hydrostarter - Propulsion Engine	53-1	53
Hydrostarter - Diesel Generator Engine	54-1	54
Hydrostarter - Anchor Winch Engine	55-1	55
Hydraulic Starting System Accumulator	56-1	56
Engine Driven Hydraulic Pump	57-1	57
Starting System Hand Pump	58-1	58
Hydraulic Reservoir - Anchor Winch Engine	59-1	59
Hydraulic Reservoir - Propulsion and Diesel Generator Engine	60-1	60
Hydraulic Starting System Filter	61-1	61
Port and Starboard Propeller and Shafting	63-1	63

	Page	Illus/ Figure
Line Shafting - Port Side Only	64-1	64
Propeller Split Shaft Seal	65-1	65
Propeller Shaft Lock	66-1	66
Group 02		
Electric Power Generator and Distribution		
Ships Service Main Switchboard	67-1	67
Power Distribution Circuit Breaker Panel P-400	69-1	69
Power Distribution Circuit Breaker Panel P-406	70-1	70
Power Distribution Circuit Breaker Panel P-408	71-1	71
Power Distribution Circuit Breaker Panel P-408-A	72-1	72
Diesel Generator Engine Mounting	73-1	73
Main Generator Assembly	74-1	74
Emergency Shutdown Head and Linkage	76-1	76
Synchronizing Motor	77-1	77
Hydraulic Governor	78-1	78
Governor Oil Filter	79-1	79
Air Intake	80-1	80
Blower	81-1	81
Fuel Pump and Drain	82-1	82
Fuel Filter	83-1	83
Fuel Strainer	84-1	84
Fuel Injectors	85-1	85
Fuel Lines	86-1	86
Oil Filter	87-1	87
Oil Cooler	88-1	88
Fresh Water Pump	89-1	89
Expansion Tank and Water Connections	90-1	90
Water Manifold	91-1	91
Thermostat and Housing	92-1	92
Relay, Shutdown and Switches	93-1	93
Overspeed Governor	94-1	94
Tachometer and Drive	95-1	95
Air Cleaner	96-1	96
Crankshaft Pulley	97-1	97
Balance Weight and Cover	98-1	98
Engine Lift Brackets and Support	99-1	99
Exhaust Manifold	100-1	100
Rocker Arm Cover	101-1	101
Injector Controls	102-1	102
Oil Pan, Dipstick and Fill	103-1	103
Cylinder Head	104-1	104
Valve Operating Mechanism	105-1	105
Exhaust Valve Arrangement	106-1	106
Camshaft and Gear Train	107-1	107
Idle Gear Hole Spacer Assembly	108-1	108
Idle Gear	109-1	109
Flywheel and Housing	110-1	110
Oil Pressure Regulator	111-1	111
Lube Oil Pump	112-1	112
Oil Distribution System	113-1	113
Pistons, Connecting Rods and Liner	114-1	114
Crankshaft and Bearing	115-1	115
Cylinder Block	116-1	116
Instrument Panel	117-1	117

	Figure	Illus/Page
Fuel Primer Pump	118-1	118
Generator and Regulator Mounting	119-1	119
12-Volt Generator	120-1	120
24-VOC Rectifier	121-1	121
Circuit Breaker Panel L-100	122-1	122
Circuit Breaker Panel L-101 Ol.....	123-1	123
Fuse Panel L-103	124-1	124
Interior Communications Fuse Panel 2L-103	125-1	125
Circuit Breaker Panels L-104, L-105 and L-110	126-1	126
Circuit Breaker Panels L-106 and L-107	127-1	127
Galley Fuse Panel L-108	128-1	128
Fuse Panel P-402.....	129-1	129
Fuse Panel P-409.....	130-1	130
Fuse Panel P-024.....	131-1	131
Alarm Distribution Panel	132-1	132
Terminal Box - Symbol 432.1	133-1	133
Toggle Switch	134-1	134
Break Glass Control Station	135-1	135
Triple Receptacle	136-1	136
Watertight Receptacle - Symbol 900.1	137-1	137
Watertight Receptacle - Symbol 735.1.....	138-1	138
Terminal Box and Duplex Receptacle.....	139-1	139
Terminal Box - Symbol 433.1.....	140-1	140
Interlocking Door Operated Switch - Symbol 791.1.....	141-1	141
Disconnect Switch	142-1	142
Safety Switch, Air Horn Compressor	143-1	143
Floodlight - Symbol 300.2	144-1	144
Incandescent Lighting Fixture - Symbol 98.1	145-1	145
Incandescent Ceiling Fixture	146-1	146
Incandescent Bulkhead Fixture	147-1	147
Explosion-Proof Lighting Fixture	148-1	148
Incandescent Ceiling Fixture	149-1	149
Fluorescent Desk Light Fixture	150-1	150
Desk Light Fixture	151-1	151
General Purpose Fluorescent Light Fixture	152-1	152
Mirror Light Fixture	153-1	153
Secretary Light Fixture	154-1	154
Berth Light	155-1	155
Rotary Light, Red	156-1	156
Rotary Light, Amber	157-1	157
Fluorescent Light Fixture, Red and White	158-1	158
Relay Operated Lantern	159-1	159
Portable Lantern	160-1	160
Navigation Light Panel LCU 1667 Only	161-1	161
Navigation Light Panel LCU 1668 through LCU 1670	162-1	162
Group 03 Bow Ramp and Winch		
Bow Ramp and Fairlead	163-1	163
Wire Rope Guard	166-1	166
Bow Ramp Winch.....	167-1	167
Torque Coupling	168-1	168
Speed Reducer	169-1	169
Magnetic Brake	170-1	170
Bow Ramp Winch Motor.....	171-1	171

	Figure	Illus/Page
Motor Controller	172-1	172
Local Pushbutton Switches	173-1	173
Remote Pushbutton Switches	174-1	174
Hand Crank Interlock Limit Switch	175-1	175
Slack Cable Limit Switch	176-1	176
Group 04 Stern Gate		
Stern Gate and Portable Davit.....	177-1	177
Group 05 Anchor Handling		
Anchor Winch Universal Joint Assembly	178-1	178
Anchor Winch Drive Brake	179-1	179
Anchor Winch Gear Drive	180-1	180
Level Wind Assembly and Guard	181-1	181
Anchor Winch Gear Guards and Frame	182-1	182
Anchor Winch Drum Assembly	183-1	183
Slack Puller Hydraulic Motor	185-1	185
Disconnect Clutch	187-1	187
Clutch Cover Plate	188-1	188
Torque Converter - Fluid System	189-1	189
Torque Converter - Input Group	190-1	190
Torque Converter - Output Group	191-1	191
Torque Converter - Basic Group	192-1	192
Hydraulic Tank Assembly	193-1	193
Hydraulic Filter	194-1	194
Pilot Valve and Manifold.....	195-1	195
Pressure Control Valve.....	196-1	196
Check Valve.....	197-1	197
Directional Valve - Pilot Operated	198-1	198
Relief Valve... ..	199-1	199
Check Valve.....	200-1	200
Pressure Reducing Valve.....	201-1	201
Hydraulic Pump.....	202-1	202
Hydraulic Pump Couplings.....	203-1	203
Spring Centered Solenoid - Directional Valve	204-1	204
Anchor Winch Brake Control.....	205-1	205
Engine Clutch and Throttle Controls.....	206-1	206
Throttle Cable and Linkage.....	207-1	207
Engine Stop Control	208-1	208
Engine Throttle Linkage.....	210-1	210
Governor Linkage and Mounting.....	211-1	211
Governor Control Housing Assembly.....	213-1	213
Governor Housing Assembly	215-1	215
Air Intake	216-1	216
Blower.....	217-1	217
Fuel Pump.....	218-1	218
Fuel Lines	219-1	219
Fuel Strainer	220-1	220
Fuel Filter	221-1	221
Fuel Ejector	222-1	222
Oil Filter	223-1	223
Oil Cooler	224-1	224
Fresh Water Pump.....	225-1	225
Water Connections	226-1	226
Water Manifold	227-1	227

	Figure	Illus/Page
Thermostat and Housing.....	228-1	228
Overspeed and Governor.....	229-1	229
Tachometer Drive.....	230-1	230
Crankshaft Pulley and Damper.....	231-1	231
Balance Weight Cover.....	232-1	232
Engine Lift Brackets.....	233-1	233
Exhaust Manifold.....	234-1	234
Rocker Arm Cover.....	235-1	235
Injector Controls.....	236-1	236
Oil Pan and Dipstick.....	237-1	237
Cylinder Head.....	238-1	238
Valve Operating, Mechanism.....	239-1	239
Exhaust Valve Arrangement.....	240-1	240
Camshaft and Gear Train.....	241-1	241
Idler Gear Hole Spacer Assembly.....	242-1	242
Idler Gear.....	243-1	243
Flywheel and Housing.....	244-1	244
Oil Pressure Regulator.....	245-1	245
Oil Pump.....	246-1	246
Breather Tube.....	247-1	247
Oil Distribution System.....	248-1	248
Pistons, Connecting Rods and Liners.....	249-1	249
Crankshaft and Bearings.....	250-1	250
Cylinder Block.....	251-1	251
Anchor Winch Engine Pressure Switches.....	252-1	252
Instrument Panel and Tachometer.....	253-1	253
Anchor A-Frame Fairleader.....	254-1	254
Anchor A-Frame and Cables.....	255-1	255
Wire Rope Cutter.....	256-1	256
Group 06 Mast		
Mast Installation.....	257-1	257
Group 07 Ships Hydraulic System		
Central Hydraulic Piping.....	258-1	258
Hydraulic Pump Motor.....	260-1	260
Hydraulic Pump.....	261-1	261
Motor Starter.....	263-1	263
Two Position Element Control Station.....	264-1	264
Directional Control Valve.....	265-1	265
Stem Gate Hydraulic Cylinder.....	266-1	266
Mast Hydraulic Cylinder.....	267-1	267
Directional Control Valve.....	268-1	268
A-Frame Hydraulic Winch.....	269-1	269
Group 08 Steering System		
Hydraulic Cub Pump Unit.....	270-1	270
Brake Valve.....	271-1	271
Directional Control Valve.....	272-1	272
Hydraulic Pump.....	273-1	273
Pump Motor and Coupling.....	274-1	274
Motor Controller.....	275-1	275
Steering Hydraulic Cylinder.....	276-1	276
Main Rudder Stock Arrangement.....	277-1	277
Main Rudder Linkage.....	278-1	278
Flanking Rudder Stock Arrangement.....	279-1	279

	Page	Illus/ Figure
Flanking Rudder Linkage.....	280-1	280
Flanking Rudder Limit Switch	281-1	281
Main Rudder Angle and Repeat Back Transmitter	282-1	282
Rudder Angle Indicator.....	283-1	283
Heading Selector.....	284-1	284
Steering Control Panel.....	286-1	286
Remote Magnetic Heading System.....	287-1	287
Emergency Steering Arrangement.....	288-1	288
Group 09 Pump Set		
Fire	289-1	289
Contactors	290-1	290
Bilge Pump.....	291-1	291
Bilge Pump Drive Arrangement.....	292-1	292
Bilge Pump Clutch.....	293-1	293
Lube Oil Pump.....	294-1	294
Motor Controller.....	295-1	295
Starter.....	296-1	296
Fresh Water Pump.....	297-1	297
Air Conditioning Water Circulation Pump.....	298-1	298
Pump Motor	299-1	299
Diesel Oil Cooling Pump.....	300-1	300
Pump Motor.....	301-1	301
Sewage Pump.....	302-1	302
Pump Motor	303-1	303
Sewage Pump and Air Pump Controller.....	304-1	304
Remote Pushbutton Station.....	305-1	305
Macerator/Transfer Pump.....	306-1	306
Sewage Air Pump	307-1	307
Lube Oil Transfer Pump	308-1	308
Portable Fire Pump.....	309-1	309
Portable Fire Pump - Starter Assembly.....	310-1	310
Portable Fire Pump - Carburetor Assembly.....	311-1	311
Portable Fire Pump - Carburetor of Linkage, Control Panel and Manifold	312-1	312
Portable Fire Pump - Fuel Tank Assembly.....	313-1	313
Portable Fire Pump - Magneto Assembly.....	314-1	314
Portable Fire Pump - Power Head and Receiver Assembly.....	315-1	315
Portable Fire Pump - Crankshaft and Piston Assembly	316-1	316
Portable Fire Pump - Frame and Corners Assembly.....	317-1	317
Portable Fire Pump - Foot Valve Assembly.....	318-1	318
Portable Fire Pump - Pressure Regulator and Operating Cylinder.....	319-1	319
Portable Fire Pump - Pump and Water Outlet Valve	320-1	320
Portable Fire Pump - Priming Pump and Gear Housing	321-1	321
Group 10 Sewage System		
Urinal	322-1	322
Commode.....	323-1	323
Flush Valve.....	324-1	324
Group 11 Heating, Ventilation and Air Conditioning System		
Recirculating Fan	325-1	325
Exhaust Fan, (Galley/Washroom)	326-1	326
Exhaust Fan (Air Conditioning Machinery and Spares Space)	327-1	327
Exhaust Fan (Anchor Winch and Bow Ramp Winches).....	328-1	328

	Page	Illus/ Figure
Centrifugal Fan and Motor	329-1	329
Fan Motor (Engine Room Fan).....	330-1	330
Fan Motor (Engine Room Fan).....	331-1	331
Fan Motor (Machine Room).....	332-1	332
Fan Motor (Anchor Winch Room)	333-1	333
Starter.....	334-1	334
HVAC Ducting	335-1	335
Compressor Unit Assembly.....	336-1	336
Freon Compressor	337-1	337
Heat Interchanger and Liquid Indicator	339-1	339
Strainer.....	340-1	340
Drier Assembly.....	341-1	341
Gage Board	342-1	342
Thermostat	343-1	343
Thermometers	344-1	344
Thermal Valve	345-1	345
Group 12 Commissary Space Equipment		
Sink Heater.....	346-1	346
Toaster	347-1	347
Drinking Fountain	348-1	348
Milk Dispenser	349-1	349
Coffee Maker	350-1	350
Washer/Dryer Exterior	351-1	351
Washer/Dryer Drum Heater	352-1	352
Washer/Dryer Blower	353-1	353
Washer/Dryer Tubs, Water Valve and Lid Switch	354-1	354
Washer/Dryer Drive System Pump.....	355-1	355
Washer/Dryer Transmission, Water Seal and Lubricating Bearing	356-1	356
Refrigerator.....	357-1	357
Electric Range	358-1	358
Group 13 Washroom and Water Closet Fixture		
Washroom Equipment	359-1	359
Group 14 Firefighting System		
Firefighting Components	360-1	360
Halon Control Panel.....	361-1	361
Pneumatic Heat Detector.....	362-1	362
Cylinder Assembly	363-1	363
Cylinder Assembly	364-1	364
Halon System Piping and Wiring	365-1	365
Group 15 Interior Communication		
Alarm Switchboard	366-1	366
Two Line Alarm Panel.....	367-1	367
Call System Major Components	369-1	369
Anchor Windlass Horn, Navigation Horn and Switch.....	370-1	370
Entertainment Amplifier.....	371-1	371
Amplified Speaker	372-1	372
Sound Powered Telephone Handset.....	374-1	374
Chest Headset, Hook and Locker	375-1	375
Jackbox and Plug.....	376-1	376
Public Address with Battery.....	377-1	377
External Battery Cable Assembly	378-1	378
Loadhailer Assembly.....	379-1	379

	Page	Illus/ Figure
Tachometer	381-1	381
Voice Tube	382-1	382
Group 016 Electronic and Navigation System		
24 Volt Distribution Panel.....	384-1	384
Group 17 Oil Water Separator		
Oil-Water Separator.....	385-1	385
Solenoid Valve	386-1	386
Solenoid Valve	387-1	387
Manual Ball Valve.....	388-1	388
Separator Subassembly.....	389-1	389
Manual Ball Valve.....	390-1	390
Pump-Motor Assembly.....	391-1	391
Manual Ball Valve.....	392-1	392
Pump-Motor.....	393-1	393
Central Control Panel Assembly	394-1	394
Group 18 Piping System		
Pipe Hangars.....	395-1	395
Fire, Ballast and Bilge Piping (Fire).....	396-1	396
Gage Piping.....	397-1	397
Wye Strainer	398-1	398
Diesel Engine Cooling System	399-1	399
i-lull Coolers.....	400-1	400
Lube Oil Piping	401-1	401
Reach Rods - Diesel Oil Shutoff Valve	403-1	403
Diesel Oil Piping	404-1	404
Air Conditioning Cooling Piping.....	405-1	405
Diesel Oil Cooling Piping	406-1	406
Shaft Seal Tank.....	407-1	407
Fuel Filter/Separator.....	409-1	409
NBC Washdown System.....	410-1	410
Exhaust System.....	411-1	411
Fresh and Flush Water Piping.....	414-1	414
Group 19 Tanks and Voids		
Tank Level Indication Receiver.....	416-1	416
Transmitter	417-1	417
Cable Assembly.....	418-1	418
Bracket Assembly.....	419-1	419
Penetration Assembly	420-1	420
Water Heater	421-1	421
Deck and Sanitary Drains	422-1	422
Vents and Sounding Tubes.....	423-1	423
Group 20 Hull and Outfit		
Furniture - Galley and Mess Room	424-1	424
Furniture - Pilot House and Deck House	425-1	425
Furniture - Crew Berthing Space.....	426-1	426
Furniture - Officer's Stateroom.....	427-1	427
Stanchions and Railings.....	428-1	428
Portable Air Compressor.....	429-1	429
Portable Air Compressor.....	430-1	430
Lashing Gear	431-1	431
Doors.....	432-1	432
Manholes	435-1	435
Windows and Airport.....	436-1	436

	Page	Illus/ Figure
Hi-Intensity Portable Light	437-1	437
Portable Light Battery Charger	438-1	438
Window Wiper Assembly	439-1	439
Window Wiper Motor	440-1	440
Window Wiper Control	441-1	441
Window Wiper Assembly	442-1	442
Window Wiper Motor	443-1	443
Window Wiper Control	444-1	444
Navigation Light - Port	445-1	445
Navigation Light - Starboard	446-1	446
Navigation Light - Towing	447-1	447
Navigation Light - Masthead	448-1	448
Navigation Light - Stem Clear	449-1	449
Signal Light -. Task	450-1	450
Navigation Light - Anchor and Boom	451-1	451
Signal Light - Man Overboard	452-1	452
Navigation Light - Blinker	453-1	453
Wake Light	454-1	454
Searchlight Mounting and Yoke Assembly	455-1	455
Searchlight Hood Assembly	456-1	456
Searchlight Shutter Assembly	457-1	457
Searchlight Drum Assembly	458-1	458
Air Horn Piping	460-1	460
Air Horn Assembly	461-1	461
Whistle Valve Assembly	462-1	462
Air Strainer Assembly	463-1	463
Air Compressor Unit	464-1	464
Air Compressor	465-1	465
Section III. SPECIAL TOOLS LIST		
Special Tools List	466-1	466
Section IV. CROSS REFERENCE INDEXES		
National Stock Number Index	I-1	
Part Number Index	I-31	
Figure and Item Number Index	I-196	

UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST

Section I. INTRODUCTION

1. **SCOPE.** This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of unit, direct support, and general support maintenance of the Landing Craft Utility, LCU 1667 through 1670. It authorizes the requisitioning, issue, and disposition of spares, repair parts and special tools as indicated by the source, maintenance and recoverability (SMR) codes.

2. **GENERAL.** In addition to this section, Introduction, this Repair Parts and Special Tools List is divided into the following sections:

a. **Section II. Repair Parts List.** A list of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. This list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Bulk materials are listed in item name sequence. Repair parts kits are listed separately in their own functional group within Section II. Repair parts for repairable special tools are also listed in this section. Items are shown in the associated illustration(s)/figure(s).

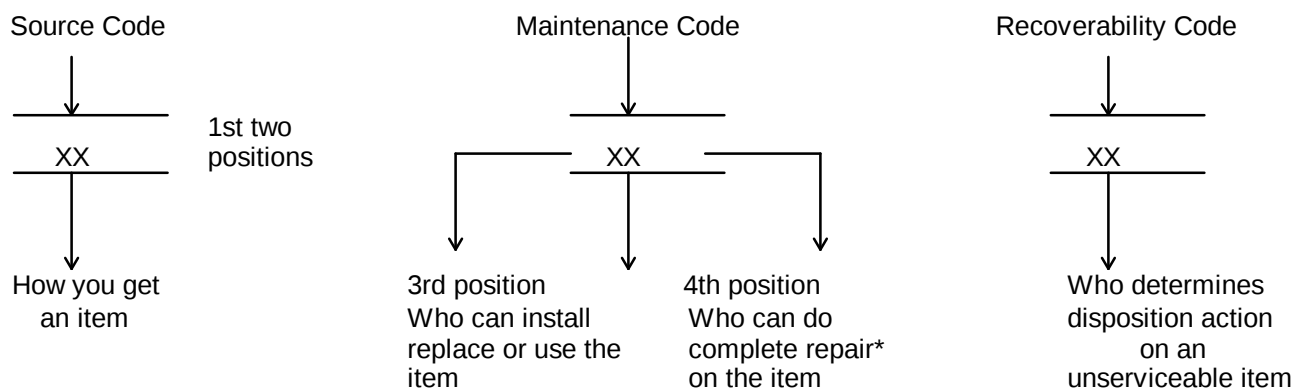
b. **Section III. Special Tools List.** A list of special tools, special TMDE, and other special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in DESCRIPTION AND USABLE ON CODE column) for the performance of maintenance.

c. **Section IV. Cross-references Indexes.** A list, in National Item Identification Number (NIIN) sequence, of all National stock numbered items appearing in the listing, followed by a list in alphanumeric sequence of all part numbers appearing in the listings. National stock numbers and part numbers are cross referenced to each illustration figure and item number appearance. The figure and item number index lists figure and item number in alphanumeric sequence and cross references NSN, CAGEC and part number.

3. EXPLANATION OF COLUMNS (SECTIONS II AND III).

a. **ITEM NO. (Column (1)).** Indicates the number used to identify items called out in the illustration.

b. **SMR Code (Column (2)).** The Source, Maintenance, and Recoverability (SMR) code is a 5-position code containing supply/requisitioning information, maintenance category authorization criteria, and disposition instruction, as shown in the following breakout:



*Complete Repair: Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

(1) Source Code. The source code tells you how to get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanations of source codes follows:

Code	Explanation
PA	Stocked items; use the applicable NSN to requested/requisition items with these source codes. They are authorized to the category indicated by the code entered in the 3rd position of the SMR code. NOTE: Items coded PC are subject to deterioration.
PB	
PC**	
PD	
PE	
PF	
PG	
KD	Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance category indicated in the 3rd position of the SMR code. The complete kit must be requisitioned and applied.
KF	
KB	
MO -	(Made at org/AVUM Level)
MP -	(Made at DS/AVUM Level)
MH -	(Made at GS Level)
ML -	(Made at Specialized
MD -	Repair Activity (SRA)) (Made at Depot)
AO -	(Assembled by org/AVUM Level)
AF -	(Assembled by DS/AVIM Level)
AH -	(Assembled by GS Category)
AL -	(Assembled by SRA)
AD -	(Assembled by Depot)
XA -	Do not requisition "XA"-coded item. Order its next higher assembly. (Also, refer to the NOTE below.)
XB -	If an "XB" item is not available from salvage, order it using the CAGEC and part number given.
XC -	Installation drawing, diagram, instruction sheet, field service drawing, that is identified by Reciprocating Compressor manufacturer's part number.
XD -	Item is not stocked. Order an "XD"-coded item through normal supply channels using the CAGEC and part number given if no NSN is available.

NOTE

Cannibalization or controlled exchange, when authorized, may be used as a source of supply for items with the above source codes, except for those source coded "XA" or those aircraft support items restricted by requirements of AR 750-1.

(2) Maintenance Code. Maintenance codes tell you the level(s) of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the SMR code as follows:

(a) The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to one of the following levels of maintenance.

Code	Application/Explanation
C -	Crew or operator maintenance done with unit or aviation unit maintenance.
O -	Unit or aviation unit category can remove, replace, and use the item.
F -	Direct support or aviation intermediate level can remove, replace, and use the item.
H -	General support level can remove, replace, and use the item.
L -	Specialized repair activity can remove, replace, and use the item.
D -	Depot level can remove, replace, and use the item.

(b) The maintenance code entered in the fourth position tells whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (i.e., perform all authorized repair functions.) NOTE: Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes. This position will contain one of the following maintenance codes.

Code	Application/Explanation
O -	Unit or (aviation unit) is the lowest level that can do complete repair of the item.
F - the	Direct support or aviation intermediate is the lowest level that can do complete repair of item.
H -	General Support is the lowest level that can do complete repair of the item.
L -	Specialized repair activity is the lowest level that can do complete repair of the item.
D -	Depot is the lowest level that can do complete repair of the item.
Z -	Nonreparable. No repair is authorized.
B -	No repair is authorized. (No parts or special tools are authorized for the maintenance of a B" coded item). However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

(3) Recoverability Code. Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the SMR Code as follows:

**Recoverability
Codes**
Application/Explanation

- Z - Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in 3d position of SMR Code.
- O - Reparable item. When not economically reparable, condemn and dispose of the item unit or aviation unit level
- F - Reparable item. When uneconomically reparable, condemn and dispose of the item at the direct support or aviation intermediate level.
- H - Reparable item. When uneconomically reparable, condemn and dispose of the item at the general support level.
- D - Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item not authorized below depot level.
- L - Reparable item. Condemnation and disposal not authorized below specialized repair activity (SRA).
- A - Item requires special handling or condemnation procedures because of specific reasons (e.g., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

c. CAGEC (Column (3)). The Commercial and Government Entity Code (CAGEC) is a 5-digit numeric code which is used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

d. PART NUMBER (Column (4)). Indicates the primary number used by the manufacturer, (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements to identify an item or range of items.

NOTE

When you use an NSN to requisition an item, the item you receive may have a different part number from the part ordered.

e. DESCRIPTION AND USABLE ON CODE (UOC) (Column (5)). This column includes the following information:

- (1) The Federal item name and, when required, a minimum description to identify the item.
- (2) The physical security classification of the item is indicated by the parenthetical entry, e.g., PhySecC1- Confidential, PhySec C1 (S) - Secret, PhySec C1 (T) -- Top Secret.
- (3) Items that are included in kits and sets are listed below the name of the kit or set.
- (4) Spare/repair parts that make up an assembled item are listed immediately following the assembled item line entry.
- (5) Part numbers for bulk materials are referenced in this column in the line item entry for the item to be manufactured/fabricated.
- (6) When the item is not used with all serial numbers of the same model, the effective serial numbers are shown on the last line(s) of the description (before UOC).
- (7) The usable on code, when applicable (see paragraph 5, Special Information).

- (8) In the Special Tools List section, the basis of issue (BOI) appears as the last line(s) in the entry for each special tool, special TMDE, and other special support equipment. When density of equipments supported exceeds density spread indicated in the basis of issue, the total authorization is increased proportionately.
- (9) The statement "END OF FIGURE" appears just below the last item description in Column 5 for a given figure in both Section II and Section III.
- (10) The indenture, shown as dots appearing before the repair part, indicates that the item is a repair part of the next higher assembly.

f. QTY (Column (6)). The QTY (quantity per figure column) indicates the quantity of the item used in the breakout shown on the illustration figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column in lieu of a quantity indicates that the quantity is variable and may vary from application to application.

4. EXPLANATION OF COLUMNS (SECTION IV).

a. NATIONAL STOCK NUMBER (NSN) INDEX.

- (1) STOCK NUMBER column. This column lists the NSN by National item identification number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN, i.e.

NSN
5305-01-574-1467
NIIN

When using this column to locate an item, ignore the first 4 digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

- (2) FIG. column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in Section II and Section III.
- (3) ITEM column. The item number identifies the item associated with the figure listed in the adjacent FIG. column. This item is also identified by the NSN listed on the same line.

b. PART NUMBER INDEX. Part numbers in this index are listed by part number in ascending alphanumeric sequence (i.e., vertical arrangement of letter and number combination which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

- (1) CAGEC column. The Commercial and Government Entity Code (CAGEC) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.
- (2) PART NUMBER column. Indicates the primary number used by the manufacturer (individual, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements to identify an item or range of items.
- (3) STOCK NUMBER column. This column lists the NSN for the associated part number and manufacturer identified in the PART NUMBER and CAGEC columns to the left.
- (4) FIG. column. This column lists the number of the figure where the item is identified/located in Sections II and III.

(5) ITEM column. The item number is that number assigned to the item as it appears in the figure referenced in adjacent figure number column.

c. FIGURE AND ITEM NUMBER INDEX.

- (1) FIG. column. This column lists the number of the figure where the item is identified/located in Section II and III.
- (2) ITEM column. The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column.
- (3) STOCK NUMBER column. This column lists the NSN for the item.
- (4) CAGEC column. The Commercial and Government Entity Code (CAGEC) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.
- (5) PART NUMBER column. Indicates the primary number used by the manufacturer (individual, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements to identify an item or range of items.

5. SPECIAL INFORMATION.

a. USABLE ON CODE. The usable on code appears in the lower corner of the Description column heading. Usable on codes are shown as "UOC:..." in the Description Column justified left) on the last line applicable item description/nomenclature. Uncoded items are applicable to all models.

b. ASSOCIATED PUBLICATIONS. The publications listed below pertains to the Landing Craft Utility, LCU 1667 through 1670 and its components.

<u>Publication</u>	<u>Short Title</u>
TM 55-1905-219-34P-1 & 2	DS/GS Maintenance RPSTL, Landing Craft Utility, LCU 1667 through 1670
TM 55-1905-219-14	Operator's, Organizational, DS/GS Maintenance Manual Landing Craft Utility, LCU 1667 through 1670

c. APPLICABILITY. Only illustrations containing unit level (crew and organizational) authorized items appear in this manual. Only those parts assigned the third position SMR maintenance code of "C" or "O" are shown in the tabular listing; therefore, there may be a break in the item number sequence. The illustrations in this manual are identical to those published in TM 55-1905-34P-1.

NOTE

Associated publications shall not be listed here in combined narrative and RPSTL listings

6. HOW TO LOCATE REPAIR PARTS.

a. When National Stock Number or Part Number is NOT Known.

- (1) First. Using the table of contents, determine the assembly group or subassembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and listings are divided into the same groups.
- (2) Second. Find the figure covering the assembly group or subassembly group to which the item belongs.
- (3) Third. Identify the item on the figure and note the item number.
- (4) Fourth. Refer to the Repair Parts List for the figure to find the part number for the item number noted on the figure.
- (5) Fifth. Refer to the Part Number Index to find the NSN, if assigned.

b. When National Stock Number or Part Number is Known.

- (1) First. Using the Index of National Stock Numbers and Part Numbers, find the pertinent National Stock Number or Part Number. The NSN index is in National Item Identification Number (NIIN) sequence (see c-4a.(1)). The part numbers in the Part Number index are listed in ascending alphanumeric sequence (see paragraph c-4.b). Both indexes cross-reference you to the illustration figure and item number of the item you are looking for.
- (2) Second. After finding the figure and item number, verify that the item is the one you are looking for, then locate the item number in the repair parts list for the figure.

7. ABBREVIATIONS. Abbreviations used in this manual are listed in MIL-STD-12.

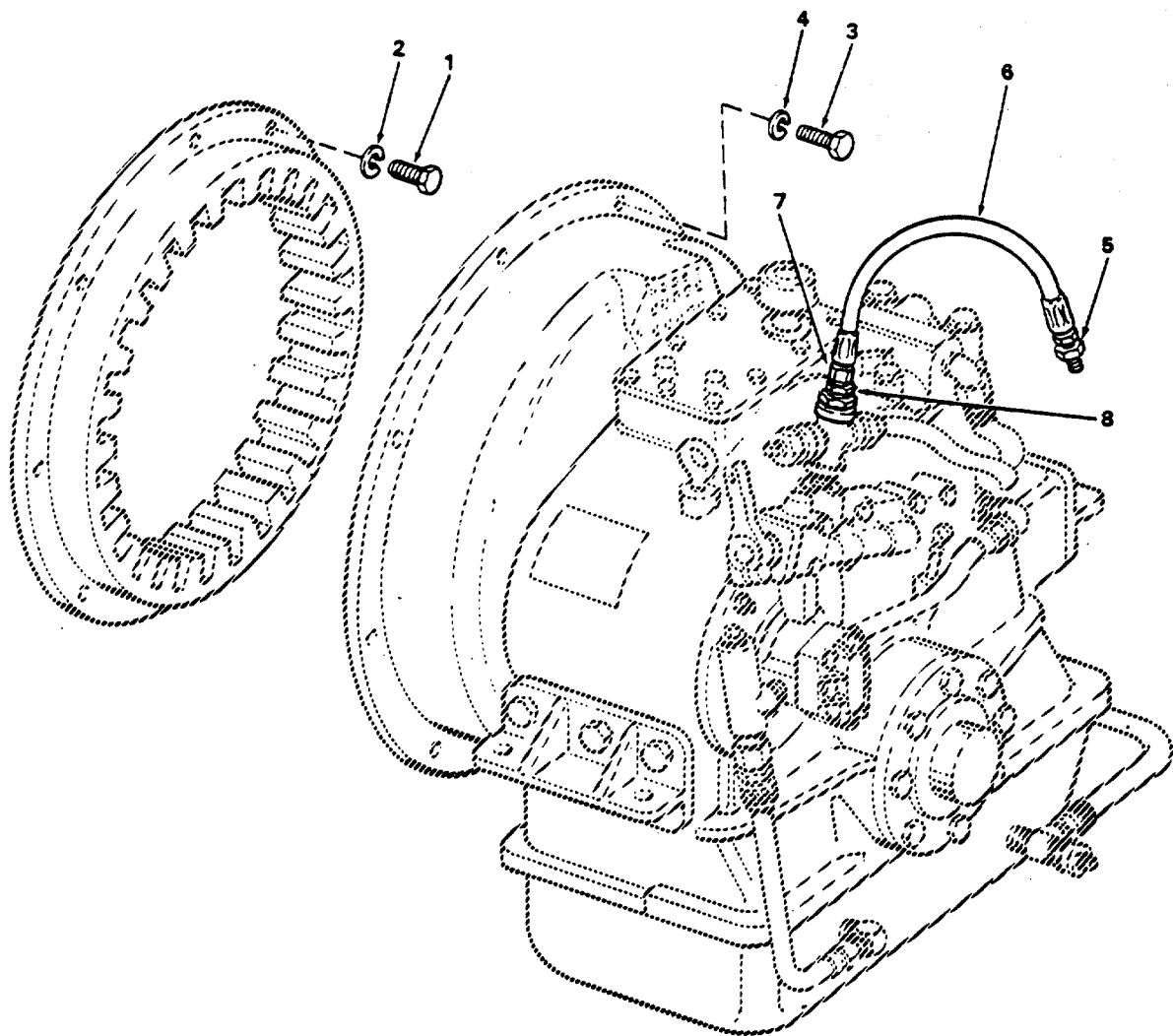


Figure 1. Marine Gear Installation.

SECTION II

TM 55-1905-219-20P-1

(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	CAGEC	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY

GROUP 01 PROPULSION SYSTEM

FIG. 1 MARINE GEAR INSTALLATION

	PBCHD	72582	7122-7000	ENGINE,DIESEL INCLUDES OPTIONAL	2
				EQUIPMENT LISTED ON ENGINE OPTION	
				PLATE	
1	XDCZZ	96906	MS90725-111	.SCREW,CAP,HEXAGON H	8
2	XDCZZ	96906	MS35338-48	.WASHER,LOCK	8
3	PACZZ	96906	MS90728-88	.SCREW,CAP,HEXAGON H	11
4	PACZZ	96906	MS35338-47	.WASHER,LOCK.	11
5	PACZZ	96906	MS39158-3	.ADAPTER,STRAIGHT,PI.....	1
6	PACZZ	72582	5131604	.HOSE ASSEMBLY,NONME	1
7	XDCZZ	72582	1508350	.COUPLING,PIPE	1
8	PACZZ	72582	144050	.BUSHING	1

END OF FIGURE

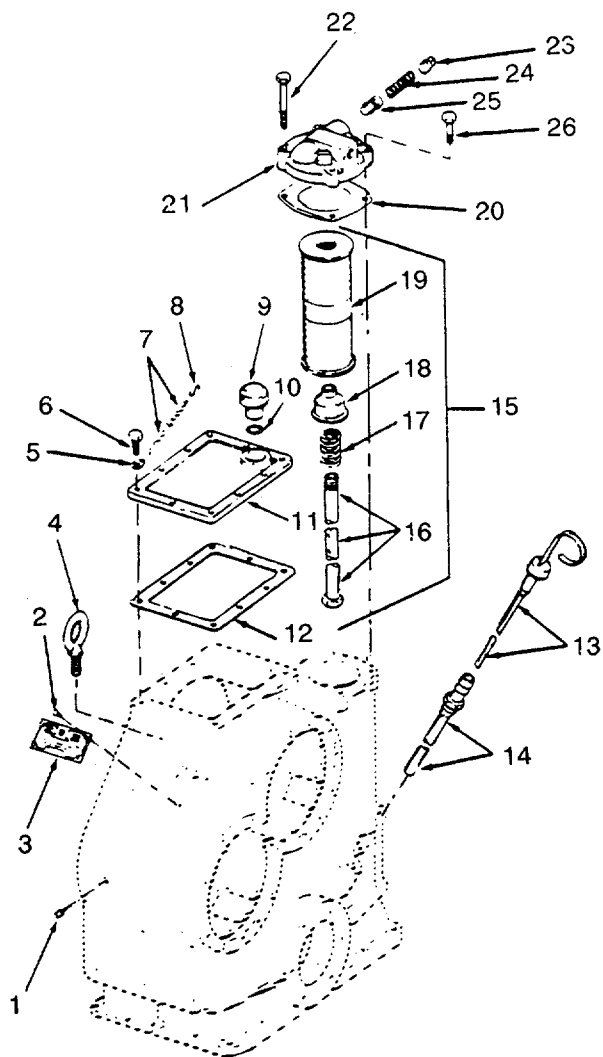


Figure 2. Marine Gear (Sheet 1 of 7).

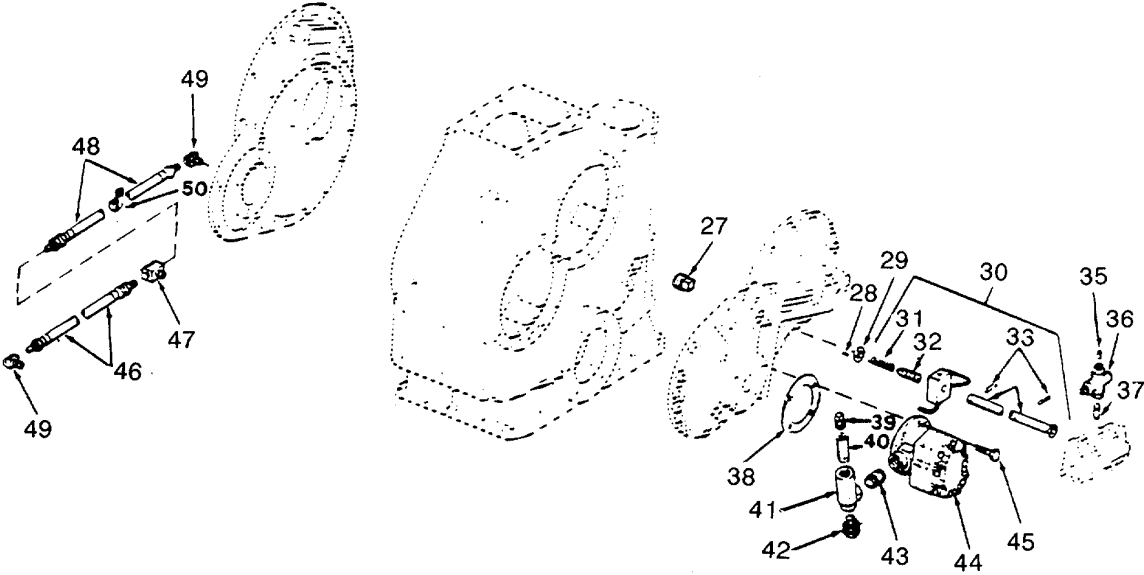


Figure 2. Marine Gear (Sheet 2 of 7).

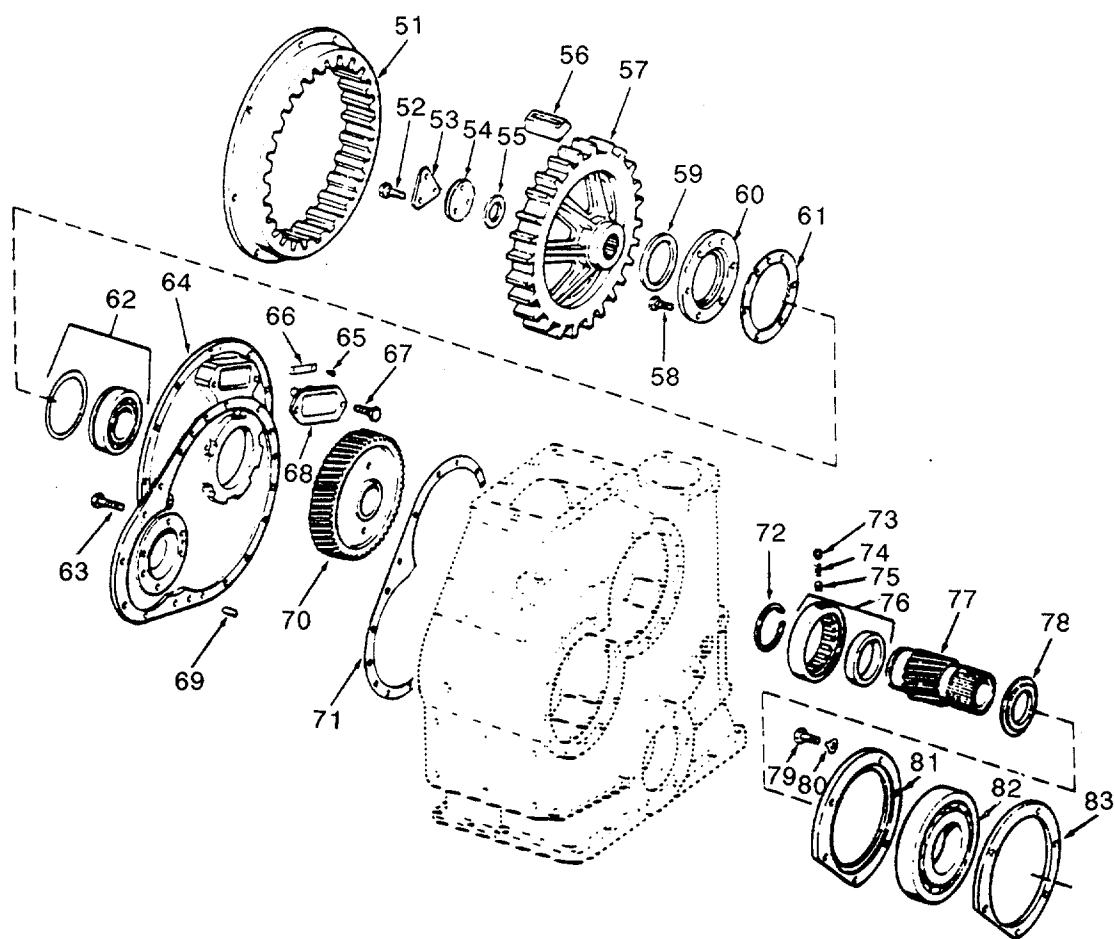


Figure 2. Marine Gear (Sheet 3 of 7).