

NOTE: Engine repair information is not contained within this tractor Repair Manual. For engine repair, refer to publication number 87515682 for the 8.3 & 9.0L 6 Cylinder, 24 Valve CNH Engine with High Pressure Common Rail Fuel System.

BOOK 1 - 87678533

STANDARD TORQUE SPECIFICATIONS	SECTION 00, CHAPTER 1
TORQUE SPECIFICATIONS - METRIC HARDWARE	00-1-4
TORQUE SPECIFICATIONS - STEEL HYDRAULIC FITTINGS	00-1-5
TORQUE SPECIFICATIONS - STEEL HYDRAULIC FITTINGS	00-1-6
SAFETY, GENERAL INFORMATION, MAINTENANCE SCHEDULE	SECTION 00, CHAPTER 2
SAFETY	00-2-3
GENERAL INFORMATION	00-2-5
LUBRICATION/MAINTENANCE CHART	00-2-6
SYSTEM CAPACITIES	00-2-7
ENGINE REMOVAL AND INSTALLATION	SECTION 10, CHAPTER 1
ENGINE REMOVAL	10-1-3
ENGINE INSTALLATION	10-1-10
FUEL TANK / FUEL SENDER REMOVAL AND INSTALLATION	SECTION 10, CHAPTER 2
SPECIAL TORQUES	10-2-3
FUEL TANK	10-2-3
FUEL LEVEL SENDER	10-2-10
HOOD REMOVAL	SECTION 10, CHAPTER 3
HOOD REMOVAL	10-3-3
HOOD INSTALLATION	10-3-5
COOLING SYSTEM MODULE REMOVAL AND INSTALLATION	SECTION 10, CHAPTER 4
COOLING MODULE REMOVAL	10-4-3
COOLING MODULE INSTALLATION	10-4-7
VISCOUS FAN DRIVE TEST	SECTION 10, CHAPTER 5
REQUIRED TOOLS	10-5-3
DIAGNOSTIC PROCEDURE	10-5-4
FAN SPEED TEST	10-5-7
POWERSHIFT TRANSMISSION SYSTEM -	
HOW IT WORKS AND TROUBLESHOOTING	SECTION 21, CHAPTER 1
TRANSMISSION SYSTEM INTRODUCTION	21-1-3
TRANSMISSION SYSTEM CONTROLS	21-1-5
TRANSMISSION SYSTEM COMPONENTS	21-1-6
TRANSMISSION LUBE AND DISTRIBUTION TUBES	21-1-8
POWERSHIFT TRANSMISSION CLUTCH LAYOUT	21-1-10
POWERSHIFT VALVE CLUTCH ENGAGEMENTS	21-1-11
POWER FLOW (FORWARD SPEEDS)	21-1-12
POWER FLOW (REVERSE SPEEDS)	21-1-30
POWER FLOW (FORWARD CREEPER DRIVE SPEEDS)	21-1-34
POWER FLOW (REVERSE CREEPER DRIVE SPEEDS)	21-1-40
INCHING VALVE OPERATION	21-1-42
INSTRUMENTATION CLUSTER - TRANSMISSION LEAKAGE CHECK	21-1-46
MASTER CLUTCH PRESSURE CHECK	21-1-49

FRONT FRAME TO SPEED TRANSMISSION SPLIT	SECTION 21, CHAPTER 2
SPECIAL TOOLS	21-2-3
SPECIAL TORQUES	21-2-3
FRONT FRAME TO SPEED TRANSMISSION SPLIT	21-2-4
SPEED TO RANGE TRANSMISSION SPLIT	SECTION 21, CHAPTER 3
SPECIAL TOOLS	21-3-3
SPECIAL TORQUES	21-3-3
SPEED TO RANGE TRANSMISSION SPLIT	21-3-4
Removal	21-3-4
Installation	21-3-7
SPEED TRANSMISSION	SECTION 21, CHAPTER 4
SPECIFICATIONS	21-4-4
SPECIAL TORQUES	21-4-4
TROUBLESHOOTING AFTER SPEED TRANSMISSION REPAIR	21-4-4
SPECIAL TOOLS	21-4-5
SPEED TRANSMISSION WITH CREEP OPTION	21-4-6
ASSEMBLING THE COUNTERSHAFT WITH CREEPER SPEED CLUTCH	21-4-14
TRANSMISSION ASSEMBLY WITH CREEP OPTION	21-4-78
TRANSMISSION ASSEMBLY WITHOUT CREEP OPTION	21-4-80
RANGE TRANSMISSION TO REAR FRAME SPLIT	SECTION 21, CHAPTER 5
SPECIAL TOOLS	21-5-3
SPECIAL TORQUES	21-5-3
RANGE TRANSMISSION TO REAR FRAME SPLIT	21-5-4
Disassembly	21-5-4
Assembly	21-5-7
RANGE TRANSMISSION	SECTION 21, CHAPTER 6
SPECIFICATIONS	21-6-3
TROUBLESHOOTING AFTER RANGE TRANSMISSION REPAIR	21-6-3
SPECIAL TORQUES	21-6-3
SPECIAL TOOLS	21-6-4
RANGE TRANSMISSION	21-6-5
Removing the Shaft Master Clutch	21-6-5
Removing the Input Shaft, Countershaft and Front Wheel Drive (FWD) / Park Brake Assembly	21-6-7
Disassembly of the Master Clutch	21-6-12
Exploded View of the Master Clutch	21-6-14
Assembly of the Master Clutch	21-6-15
Disassembly of the Range Transmission Input Shaft	21-6-16
Exploded View of the Range Transmission Input Shaft	21-6-22
Assembly of the Range Transmission Input Shaft	21-6-23
Cross-Section of Input Shaft	21-6-32
Disassembly of the Range Transmission Countershaft	21-6-33
Exploded View of the Range Transmission Countershaft	21-6-37
Assembly of the Range Transmission Countershaft	21-6-38
Front Wheel Drive (FWD) - Emergency Brake Disassembly	21-6-45
Exploded View of FWD and Emergency Brake	21-6-51
Assembly of the FWD / Emergency Brake	21-6-52
Exploded View of the Range Transmission Countershaft, Input Shaft, and FWD Input Shaft	21-6-66
Installing the Range Transmission Countershaft, Input Shaft, and FWD Input Shaft into the Range Transmission Housing	21-6-67
SETTING THE END PLAY OF THE RANGE TRANSMISSION COUNTERSHAFT AND INPUT SHAFT	21-6-73
Installing the Range Input Master Clutch	21-6-75

Sample of manual. Download All 2500 pages at:

<https://www.arepairmanual.com/downloads/new-holland-tg215-tg245-tg275-tg305-tractor-service-repair-manual/>

TG215/245/275/305 MASTER TABLE OF CONTENTS

TRANSMISSION CONTROL VALVES AND INCHING VALVE	SECTION 21, CHAPTER 7
SPECIAL TORQUES	21-7-3
POWERSHIFT TRANSMISSION CONTROL VALVES	21-7-3
TRANSMISSION CONTROL VALVE CONFIGURATION	21-7-4
INCHING VALVE	21-7-15
REAR FRAME	SECTION 21, CHAPTER 8
SPECIFICATIONS	21-8-3
SPECIAL TORQUES	21-8-3
SPECIAL TOOLS	21-8-3
DIFFERENTIAL	21-8-4
Removal	21-8-4
Disassembly	21-8-10
PINION SHAFT	21-8-15
Removal and Disassembly	21-8-15
Assembly and Installation	21-8-18
HEAVY DUTY PINION SHAFT	21-8-25
Removal and Disassembly	21-8-25
Assembly and Installation	21-8-27
DIFFERENTIAL ASSEMBLY	21-8-33
DIFFERENTIAL INSTALLATION	21-8-38
ADJUSTING THE DIFFERENTIAL PRELOAD	21-8-45
ADJUSTING THE RING AND PINION BACKLASH	21-8-47
BEVEL PINION AND GEAR TOOTH CONTACT CHECK	21-8-48
HYDRAULIC PUMP DRIVE	SECTION 21, CHAPTER 9
SPECIAL TORQUES	21-9-3
SPECIFICATIONS	21-9-3
PUMP DRIVE	21-9-3
Removal	21-9-3
Disassembly	21-9-4
Assembly	21-9-7
Installation	21-9-12

BOOK 2 - 87689442

FRONT WHEEL DRIVE CONTROL SYSTEM - HOW IT WORKS	SECTION 25, CHAPTER 1
FRONT WHEEL DRIVE (FWD)	25-1-3
ELECTRONIC FRONT WHEEL DRIVE (FWD) CONTROL	25-1-5
FRONT WHEEL DRIVE (FWD) CONTROL MODES	25-1-7
FRONT WHEEL DRIVE (FWD) FUNCTIONAL TESTS	25-1-8
TROUBLESHOOTING	25-1-10
DIFFERENTIAL LOCK CONTROL SYSTEM - HOW IT WORKS	SECTION 25, CHAPTER 2
DIFFERENTIAL LOCK	25-2-3
ELECTRONIC DIFFERENTIAL LOCK CONTROL	25-2-5
DIFFERENTIAL LOCK CONTROL MODES	25-2-7
DIFFERENTIAL LOCK CONTROL	25-2-8
DIFFERENTIAL LOCK FUNCTIONAL TESTS	25-2-9
TROUBLESHOOTING	25-2-12
TROUBLESHOOTING	25-2-14
PTO/DIFFERENTIAL LOCK VALVE CIRCUIT	25-2-15
FRONT WHEEL DRIVE OUTPUT SHAFT	SECTION 25, CHAPTER 3
SPECIAL TORQUES	25-3-3
FWD OUTPUT SHAFT	25-3-4
FWD Output Shaft Removal	25-3-4

TG215/245/275/305 MASTER TABLE OF CONTENTS

FWD Output Shaft Disassembly	25-3-5
FWD Output Shaft Assembly	25-3-9
FRONT WHEEL DRIVE DRIVE SHAFT.....	SECTION 25, CHAPTER 4
SPECIAL TORQUES	25-4-3
FWD DRIVE SHAFT	25-4-4
SUSPENSION FWD AXLE SYSTEM - HOW IT WORKS AND TROUBLESHOOTING ..	SECTION 25, CHAPTER 5
SUSPENDED FWD AXLE OPERATION	25-5-3
SUSPENDED MFD AXLE- CALIBRATION MODE	25-5-9
ERROR TABLE	25-5-11
SUSPENDED FWD AXLE- MANUAL OPERATION MODE (TEST MODE)	25-5-13
SUSPENDED FWD AXLE- DEMONSTRATION MODE	25-5-16
SUSPENSION FWD AXLE REMOVAL	SECTION 25, CHAPTER 6
SUSPENDED FWD AXLE	25-6-3
Removal	25-6-3
Installation	25-6-5
SUPERSTEER AXLE REMOVAL AND INSTALLATION	SECTION 25, CHAPTER 7
SPECIAL TORQUES	25-7-3
SPECIAL TOOLS	25-7-3
FRONT AXLE REMOVAL	25-7-4
FRONT AXLE INSTALLATION	25-7-7
LIMITED SLIP FWD DIFFERENTIAL.....	SECTION 25, CHAPTER 8
SPECIFICATIONS	25-8-2
SPECIAL TORQUES	25-8-2
SPECIAL TOOLS	25-8-2
12 BOLT AXLE	25-8-2
DIFFERENTIAL CARRIER ASSEMBLY REMOVAL	25-8-3
DIFFERENTIAL DISASSEMBLY	25-8-4
Pinion Disassembly	25-8-8
DIFFERENTIAL ASSEMBLY	25-8-11
DIFFERENTIAL CARRIER ASSEMBLY	25-8-15
Pinion Position and Assembly	25-8-15
Shim Pack Thickness Chart	25-8-16
Setting The Pinion Depth	25-8-17
Adjusting Bearing Preload	25-8-20
DIFFERENTIAL INSTALLATION	25-8-22
Checking Backlash	25-8-23
Ring Gear and Pinion Tooth Pattern Interpretation	25-8-25
Installation of Carrier Assembly to Axle Housing	25-8-27
LOCKING FWD DIFFERENTIAL.....	SECTION 25, CHAPTER 9
SPECIFICATIONS	25-9-3
SPECIAL TORQUES	25-9-3
SPECIAL TOOLS	25-9-3
REMOVAL OF THE FRONT DIFFERENTIAL CARRIER ASSEMBLY	25-9-4
REMOVAL OF THE FRONT DIFFERENTIAL FROM THE CARRIER HOUSING	25-9-5
DISASSEMBLY OF THE DIFFERENTIAL	25-9-7
PINION DISASSEMBLY	25-9-9
ASSEMBLY OF THE DIFFERENTIAL	25-9-12
DIFFERENTIAL CARRIER ASSEMBLY	25-9-16
SETTING THE PINION DEPTH	25-9-18
ADJUSTING BEARING PRELOAD	25-9-21
DIFFERENTIAL INSTALLATION	25-9-23

TG215/245/275/305 MASTER TABLE OF CONTENTS

FWD PLANETARY HUB, STEERING KNUCKLE AND AXLE DRIVE SHAFT	SECTION 25, CHAPTER 10
SPECIFICATIONS	25-10-3
SPECIAL TORQUES	25-10-3
SPECIAL TOOLS	25-10-3
PLANETARY HUB DISASSEMBLY	25-10-4
STEERING KNUCKLE AND KINGPIN DISASSEMBLY	25-10-9
AXLE DRIVE SHAFT DISASSEMBLY	25-10-13
AXLE SHAFT ASSEMBLY	25-10-14
KINGPIN ASSEMBLY	25-10-16
STEERING KNUCKLE ASSEMBLY	25-10-20
PLANETARY HUB ASSEMBLY	25-10-25
Ten Bolt Axle Only	25-10-30
Twelve Bolt Axle Only	25-10-34
All Axles	25-10-39
SUSPENSION FWD AXLE	SECTION 25, CHAPTER 11
SPECIAL TORQUES	25-11-2
SUSPENSION FWD AXLE	25-11-3
Disassembly	25-11-3
Assembly	25-11-13
Position Sensor Adjustment	25-11-25
SUPERSTEER AXLE VERTICAL CONTROL LINKAGE	SECTION 25, CHAPTER 12
SPECIAL TORQUES	25-12-3
VERTICAL LINK DISASSEMBLY AND REPAIR	25-12-3
Vertical Link Removal	25-12-3
Roller Replacement	25-12-4
Articulation Bearing Removal and Installation	25-12-5
REAR AXLE AND PLANETARIES	SECTION 27, CHAPTER 1
SPECIAL TOOLS	27-1-3
SPECIAL TORQUES	27-1-5
SPECIFICATIONS	27-1-5
GENERAL INFORMATION	27-1-5
REAR AXLE	27-1-6
AXLE HOUSING DISASSEMBLY	27-1-9
PLANETARY DISASSEMBLY	27-1-11
DIFFERENTIAL CARRIER SEAL REPLACEMENT	27-1-13
PLANETARY ASSEMBLY - THREE PIN	27-1-14
PLANETARY ASSEMBLY - FOUR PIN	27-1-15
AXLE HOUSING ASSEMBLY	27-1-18
HOW TO DETERMINE RAM PRESSURE	27-1-23
AXLE INSTALLATION	27-1-26
AXLE SEAL WEAR SLEEVE INSTALLATION (4-Inch Axle Only)	27-1-30
POWER TAKE OFF CONTROL SYSTEM - HOW IT WORKS	SECTION 31, CHAPTER 1
POWER TAKE OFF	31-1-3
ELECTRONIC PTO CONTROL	31-1-4
PTO SYSTEM CONTROL	31-1-7
PTO CONTROL MODES	31-1-8
PTO VALVE OIL SUPPLY	31-1-10
PTO DIFFERENTIAL LOCK VALVE	31-1-11
TROUBLESHOOTING	31-1-12

TG215/245/275/305 MASTER TABLE OF CONTENTS

PTO CLUTCH ASSEMBLY - SINGLE, REVERSIBLE AND DUAL SPEED.....SECTION 31, CHAPTER 2
(NOTE: Book 2A contains updated information in Section 31, Chapter 2. Use the information in Book 2A in place of this original chapter.)

BRAKE VALVE.....	SECTION 33, CHAPTER 1
SPECIAL TORQUES	33-2-2
BRAKE VALVE	33-2-3
Removal	33-2-3
Disassembly	33-2-4
Assembly	33-2-6
Installation	33-2-8
 BRAKE CYLINDERS.....	 SECTION 33, CHAPTER 2
SPECIAL TORQUES	33-2-3
SPECIFICATIONS	33-2-3
BRAKE CYLINDERS	33-2-3
Disassembly	33-2-3
Assembly	33-2-5

BOOK 2A - 87710926

PTO CLUTCH ASSEMBLY - SINGLE, REVERSIBLE AND DUAL SPEED.....	SECTION 31, CHAPTER 2
SPECIAL TOOLS	31-2-3
SPECIAL TORQUES	31-2-3
PTO CLUTCH ASSEMBLY	31-2-4
General	31-2-4
PTO CLUTCH SERVICE	31-2-4
Removal	31-2-4
Disassembly	31-2-6
Assembly	31-2-16
Exploded View of PTO Clutch	31-2-16
Cross Section of PTO Clutch and Output Shaft Assembly	31-2-33
SINGLE SPEED REVERSIBLE SHAFT PTO	31-2-34
Disassembly	31-2-34
Assembly	31-2-37
Exploded View of PTO Output Shaft and Driven Gear Assembly	31-2-37
SINGLE SPEED REVERSIBLE SHAFT PTO DRIVEN GEAR	31-2-41
Removal	31-2-41
Assembly	31-2-43
Reversible PTO Output Shaft Bearing Adjustment	31-2-45
SINGLE SPEED REVERSIBLE SHAFT PTO	31-2-47
Cross Section of PTO Output Shaft Assembly	31-2-45

BOOK 3 - 87678534

HYDRAULIC SCHEMATIC POSTER - NORTH AMERICAN.....	87518875
 HOW TO READ SYMBOLS IN A HYDRAULIC SCHEMATIC	 SECTION 35, CHAPTER 1
HOW TO READ SYMBOLS IN A HYDRAULIC SCHEMATIC	35-1-3
SIMPLE SCHEMATIC	35-1-13
COMMON SYMBOLS	35-1-15
 HYDRAULIC SYSTEM - HOW IT WORKS WITH TROUBLESHOOTING.....	 SECTION 35, CHAPTER 2
GENERAL INTRODUCTION	35-2-3
REAR CHARGE/LUBE PUMP PRESSURE TEST	35-2-17
REAR CHARGE/LUBE PUMP FLOW TEST	35-2-19

TG215/245/275/305 MASTER TABLE OF CONTENTS

REGULATED SYSTEM PRESSURE TEST AND ADJUSTMENT PROCEDURE	35-2-20
FRONT/REGULATED SYSTEM PUMP FLOW TEST	35-2-24
STEERING RELIEF PRESSURE TEST AND ADJUSTMENT PROCEDURE	35-2-26
STEERING SYSTEM PROBLEMS	35-2-28
PRIORITY AND REGULATOR VALVE	35-2-30
PFC AXIAL PISTON PUMP	35-2-33
PFC PUMP HIGH PRESSURE STANDBY CHECK AND ADJUSTMENT PROCEDURE	35-2-43
PFC PISTON PUMP FLOW CHECK AT REMOTE COUPLERS	35-2-44
PFC PISTON PUMP FLOW CHECK AT POWER BEYOND COUPLERS	35-2-45
PFC PISTON PUMP FLOW TEST	35-2-47
MEGAFLOW PFC PISTON PUMP FLOW TEST	35-2-49
PFC PISTON PUMP FLOW COMPENSATOR SETTING	35-2-51
PUMP COMPENSATOR VALVE INSPECTION	35-2-53
PFC PUMP OPERATIONAL PROBLEMS	35-2-54
 PTO AND DIFFERENTIAL LOCK VALVE.....SECTION 35, CHAPTER 3	
SPECIAL TORQUES	35-3-2
SPECIFICATIONS	35-3-2
PTO AND DIFFERENTIAL LOCK VALVE	35-3-3
 REMOTE VALVE AND COUPLER SERVICE.....SECTION 35, CHAPTER 4	
SPECIAL TORQUES	35-4-2
REMOTE VALVE AND COUPLER SERVICE	35-4-3
REMOTE VALVE REMOVAL AND SERVICE	35-4-5
REMOTE COUPLERS	35-4-14
 REMOTE HYDRAULIC SYSTEM - HOW IT WORKS AND TROUBLESHOOTINGSECTION 35, CHAPTER 5	
REMOTE HYDRAULIC SYSTEM INTRODUCTION	35-5-3
REMOTE VALVE SYSTEM COMPONENTS	35-5-5
REMOTE VALVE SYSTEM CONTROLS	35-5-11
REMOTE VALVE OPERATION	35-5-15
REMOTE VALVE PROBLEMS AND WHERE TO LOOK	35-5-24
REMOTE VALVE PROPORTIONAL CURRENT CONTROL (PCC) SOLENOID OPERATION	35-5-26
PFC PISTON PUMP FLOW CHECK AT REMOTE COUPLERS	35-5-27
REMOTE VALVE SYSTEM TESTING	35-5-28
REMOTE VALVE HIGH PRESSURE TEST	35-5-29
PFC PUMP HIGH PRESSURE STANDBY CHECK AND ADJUSTMENT PROCEDURE	35-5-30
STANDARD PUMP COMPENSATOR VALVE INSPECTION	35-5-31
REMOTE VALVE SIGNAL CHECK AND HITCH SIGNAL CHECK	35-5-32
REMOTE VALVE COUPLER TEST	35-5-33
LOAD CHECK INSPECTION	35-5-34
OPERATIONAL PROBLEMS	35-5-35
 PRIORITY AND REGULATOR VALVE.....SECTION 35, CHAPTER 6	
SPECIAL TORQUES	35-6-3
PRIORITY VALVE AND REGULATOR	35-6-4
Removal	35-6-4
Disassembly	35-6-6
Assembly	35-6-9
Installation	35-6-12
CROSS SECTION OF PRIORITY AND REGULATOR VALVE	35-6-14
 CHARGE PUMP.....SECTION 35, CHAPTER 7	
Removal	35-7-3
Installation	35-7-4

TG215/245/275/305 MASTER TABLE OF CONTENTS

PFC PISTON PUMP AND HYDRAULIC FILTER.....	SECTION 35, CHAPTER 8
SPECIAL TORQUES	35-8-3
PFC PISTON PUMP	35-8-3
Removal	35-8-3
Installation	35-8-4
HITCH SYSTEM - HOW IT WORKS	SECTION 35, CHAPTER 9
THREE POINT HITCH	35-9-3
ELECTRONIC HITCH CONTROL	35-9-4
ELECTRONIC HITCH CONTROL SYSTEM FEATURES	35-9-7
HITCH CONTROL VALVE	35-9-14
SETUP / ADJUSTMENT SEQUENCE	35-9-24
HITCH CONTROL VALVE	SECTION 35, CHAPTER 10
HITCH CONTROL VALVE	35-10-3
Removal	35-10-3
Disassembly	35-10-5
Assembly	35-10-7
Installation	35-10-9
HITCH CONTROL VALVE CROSS SECTION	35-10-11
TRACTOR HITCH	SECTION 35, CHAPTER 11
SPECIAL TORQUES	35-11-3
TRACTOR HITCH	35-11-3
EDC PIN ASSEMBLY	35-11-20
POTENTIOMETER (HITCH POSITION SENSOR)	35-11-21
CAM SWAY LIMITER	35-11-23
CAM BUMPERS FOR DRAFT ARM	35-11-25
DRAWBAR, HIGH VERTICAL CAPACITY	35-11-26
TRAILER BRAKE SYSTEMS	SECTION 35, CHAPTER 12
HYDRAULIC BRAKE SYSTEMS	35-12-4
European / NAO Hydraulic Trailer Brakes	35-12-4
Italian Hydraulic Trailer Brakes	35-12-8
PNEUMATIC BRAKE SYSTEMS	35-12-11
Pneumatic Trailer Brakes	35-12-11
European Pneumatic Trailer Brakes	35-12-11
Italian Pneumatic Trailer Brakes	35-12-14
ROW (Rest of World) Pneumatic Trailer Brakes (NAR, ANZ, CIS, LAR, EEAA)	35-12-17
Italian Hydraulic Trailer Brake Schematic	35-12-19
Italian Pneumatic Trailer Brake Schematic	35-12-21
STEERING COLUMN AND STEERING HAND PUMP	SECTION 41, CHAPTER 1
SPECIAL TOOLS	41-1-2
SPECIAL TORQUES	41-1-3
STEERING COLUMN REMOVAL	41-1-3
STEERING HAND PUMP SERVICE	41-1-6
STEERING COLUMN ASSEMBLY	41-1-8
WHEEL TOE IN SETTING SUPERSTEER FWD AXLE	SECTION 41, CHAPTER 2
WHEEL TOE IN SETTING	41-2-3
WHEEL TOE IN SETTING DIAGRAM	41-2-9
SPECIAL TOOL LAYOUT DRAWINGS	41-2-10

BOOK 4 - 87525633

A/C TROUBLESHOOTING	SECTION 50, CHAPTER 1
SAFETY PROCEDURES	50-1-5
SPECIAL TOOLS	50-1-6
A/C THERMAL OPERATION	50-1-7
A/C SYSTEM COMPONENTS	50-1-9
Cab HVAC Box Components - Automatic Temperature Control	50-1-9
Chassis Components	50-1-11
AUTOMATIC TEMPERATURE CONTROL (ATC) OPERATION	50-1-12
Operation Modes	50-1-15
Automatic Mode	50-1-15
Defog Mode	50-1-15
Automatic Operation Summary	50-1-16
Defog/Dehumidify Operation Summary	50-1-17
ATC Fault Codes	50-1-18
ATC Fault Code 111	50-1-18
ATC Fault Code 112	50-1-19
ATC Fault Code 115	50-1-19
ATC Fault Code 116	50-1-20
ATC Fault Code 120	50-1-20
ATC Fault Code 121	50-1-21
ATC Fault Code 122	50-1-21
ATC Fault Code 125	50-1-22
ATC Fault Code 126	50-1-22
ATC Fault Code 127	50-1-23
ATC Fault Code 128	50-1-23
ATC Fault Code 129	50-1-24
ATC Fault Code 130	50-1-24
ATC Fault Code 131	50-1-25
ATC Fault Code 132	50-1-25
ATC Fault Code 133	50-1-26
ATC Fault Code 134	50-1-26
Locating System Problems Without Fault Codes	50-1-27
Controller-Based Resistance Tests	50-1-27
ATC Controller Test (Connector J8 Test Points)	50-1-29
ATC Field Reported Symptoms/Causes	50-1-32
Compressor And Clutch	50-1-33
Operational Check	50-1-33
Electrical Test	50-1-36
Compressor Clutch Control Circuit Test Procedure	50-1-36
Service Note: Adjusting Clutch Air Gap	50-1-38
High And Low Pressure Switch Clutch Latching Circuit	50-1-39
Background	50-1-39
Possible Failure Modes - Fault Codes 129 and 134	50-1-40
Electrical Test	50-1-41
High Pressure Switch and Circuit Test	50-1-41
Low Pressure Switch and Circuit Test	50-1-42
Heater Control Valve	50-1-43
Operational Check	50-1-43
Electrical Test	50-1-44
Heater Control Valve Power, Signal and Ground Test	50-1-44
Blower Speed And Temperature Control Potentiometers	50-1-45
Background	50-1-45
Possible Failure Modes - Fault Codes 120, 121	50-1-45
Electrical Test	50-1-46
Common Control Potentiometer and Circuit Test Procedure	50-1-46

TG215/245/275/305 MASTER TABLE OF CONTENTS

BLOWER AND BLOWER SPEED DRIVER	50-1-47
Background	50-1-47
Power, Signal and Ground Circuit	50-1-47
Possible Failure Modes	50-1-47
Blower Motor/Blower Driver Power, Signal and Ground Test	50-1-48
Cab And Evapator Temperature Sensors	50-1-49
Background	50-1-49
Electrical Test	50-1-51
Power Circuit	50-1-51
Possible Failure Modes - Fault Codes 111, 115 and 116	50-1-52
Cab Temperature Sensor and Circuit Test	50-1-53
Evaporator Temperature Sensor and Circuit Test	50-1-54
Controller Power, Ground, And ATC Switch	50-1-56
Background	50-1-56
Power and Ground Circuit	50-1-56
Possible Failure Modes	50-1-56
Controller Power Supply and Ground Test	50-1-56
ATC Switch and Circuit Test	50-1-57
Defog/Defrost Switch and Circuit Test	50-1-57
Cab Pressurizer Blower	50-1-58
Background	50-1-58
Power and Ground	50-1-58
Cab Pressurizer Blower & Relay Power Supply and Ground Test	50-1-58
ACCESSING THE HVAC BOX	50-1-59
STANDARD AIR CONDITIONING (STD) TROUBLESHOOTING	50-1-60
Standard A/C Operation	50-1-61
Smart Pressure Switch Cycling System	50-1-61
Standard A/C Controls and Their Function	50-1-62
Symptom-Based Standard A/C Troubleshooting	50-1-63
Standard Controller Test	50-1-65
Compressor And Clutch	50-1-67
Operational Check	50-1-67
Electrical Test – Compressor Clutch	50-1-70
Clutch Relay Power Supply and Ground Test	50-1-71
Service Note: Adjusting Clutch Air Gap	50-1-72
High And Low Pressure Switch Clutch Latching Circuit	50-1-73
Background	50-1-73
Possible Failure Modes - Flashing Pressure Warning Lamp	50-1-74
Electrical Test – Pressure Switches	50-1-75
High Pressure Switch and Circuit Test	50-1-75
Low Pressure Switch and Circuit Test	50-1-76
Heater Control Valve	50-1-77
Operational Check	50-1-77
Electrical Test	50-1-78
Temperature Control Potentiometer	50-1-79
Background	50-1-79
Electrical Test	50-1-79
Blower Speed Switch And Blower Motor	50-1-80
Background	50-1-80
Power and Ground Circuit	50-1-80
Possible Failure Modes	50-1-80
Blower Speed Switch and Power Circuit Test	50-1-81
Blower Motor Power, and Control Circuit Test	50-1-81
Evaporator Temperature Sensor	50-1-83
Background	50-1-83
Electrical Test – Sensor	50-1-83
Power Circuit	50-1-84

TG215/245/275/305 MASTER TABLE OF CONTENTS

Service Note: Too Little Cooling/Too Much Heating without Symptoms	50-1-84
Evaporator Temperature Sensor and Circuit Test	50-1-84
Controller Power, Ground And A/C Switch	50-1-86
Background	50-1-86
Power and Ground Circuit	50-1-86
Possible Failure Modes	50-1-86
Controller Power Supply and Ground Test	50-1-86
A/C Switch and Circuit Test	50-1-87
Cab Pressurizer Blower	50-1-88
Background	50-1-88
Power and Ground	50-1-88
Cab Pressurizer Blower & Relay Power Supply and Ground Test	50-1-89
AIR CONDITIONER SYSTEM SERVICE	SECTION 50, CHAPTER 2
SPECIFICATIONS	50-2-4
SPECIAL TORQUES	50-2-4
SPECIAL TOOLS	50-2-4
SAFETY PROCEDURES	50-2-9
AIR CONDITIONER SYSTEM REFRIGERANT RECOVERY	50-2-10
RECOVERING PURE 134A REFRIGERANT	50-2-12
RECOVERING CONTAMINATED REFRIGERANT WITH OEM1691	50-2-16
Preparing the Tank	50-2-16
Recovery Process	50-2-20
AIR CONDITIONER SYSTEM EVACUATION AND RECHARGING	50-2-26
AIR CONDITIONING TEMPERATURE/PRESSURE CHART	50-2-33
A/C SYSTEM FLUSHING PROCEDURE	50-2-34
Required Tools	50-2-35
Precautions	50-2-36
Component Flushing Procedure with Power Flush 17550	50-2-37
Complete Circuit Flushing Procedure with Power Flush 17550	50-2-41
Back Flushing the Thermal Expansion Valve or Refrigerant Line	50-2-46
Post Flushing Procedures	50-2-48
Flushing Solvent Disposal	50-2-50
LEAK DETECTION	50-2-51
Electronic Testing with OEM1437	50-2-52
Fluorescent Leak Detection	50-2-53
Fluorescent Dye Injection	50-2-53
Fluorescent Leak Testing	50-2-59
A/C SYSTEM COMPONENTS	50-2-60
Cab HVAC Box Components - Automatic Temperature Control	50-2-60
Cab HVAC Components - Standard Systems	50-2-62
Chassis Components	50-2-64
A/C COMPRESSOR CLUTCH	50-2-65
Clutch Removal	50-2-65
Exploded View of Clutch	50-2-71
Compressor Clutch Replacement	50-2-71
A/C COMPRESSOR	50-2-79
Oil Level Check or Adjustment	50-2-79
Compressor Removal	50-2-82
Compressor Installation	50-2-85
CONDENSER AND RECEIVER-DRIER	50-2-87
Condenser	50-2-87
Receiver-Drier	50-2-88
ACCESSING THE HVAC BOX	50-2-90
THERMAL EXPANSION VALVE TESTING	50-2-92
THERMAL EXPANSION VALVE REPLACEMENT	50-2-93
EVAPORATOR AND CAB TEMPERATURE SENSOR LOCATION	50-2-95

TG215/245/275/305 MASTER TABLE OF CONTENTS

BLOWER MOTOR REPLACEMENT	50-2-96
HEATER CONTROL VALVE REPLACEMENT	50-2-97
EVAPORATOR/HEATER ASSEMBLY	50-2-98
Evaporator/Heater Assembly Removal	50-2-98
Evaporator/Heater Assembly Installation	50-2-101
Post Replacement Procedures	50-2-104
EVAPORATOR/HEATER ASSEMBLY SEALING AND CLEANING	50-2-105
BLOWER AND EVAPORATOR REFERENCE ILLUSTRATION	50-2-106
CONTROLLER AND BLOWER SPEED DRIVER REPLACEMENT	50-2-107
ATC Controller	50-2-107
Standard A/C Controller	50-2-107
Blower Speed Driver (ATC Units Only)	50-2-108
CAB AIR FILTER SERVICE	50-2-109
CAB RECIRCULATION AIR FILTER SERVICE	50-2-110
CAB PRESSURIZATION TEST	50-2-111
CAB PRESSURIZER MOTOR REPLACEMENT	50-2-113
VISCOUS FAN DRIVE	50-2-116

BOOK 5 - 87678535

ELECTRICAL SCHEMATIC POSTER - NORTH AMERICAN	87389710
ELECTRICAL SYSTEM - HOW IT WORKS AND TROUBLESHOOTING	SECTION 55, CHAPTER 1
SPECIAL TOOLS	55-1-4
FUSES AND RELAY IDENTIFICATION	55-1-5
Cab Fuses/Relay Location	55-1-5
Engine Compartment Fuse/Relay Identification (Power Distribution Box)	55-1-5
Fuse Identification	55-1-6
Relays	55-1-7
INSTRUMENTATION AND CONTROLS	55-1-8
CONNECTOR AND COMPONENT LOCATIONS	55-1-12
ELECTRICAL CONNECTORS	55-1-34
ELECTRICAL SYSTEMS SCHEMATICS AND DIAGNOSTICS	55-1-141
Power Distribution System Circuit Operation	55-1-141
Power Distribution Circuit Troubleshooting	55-1-141
Power Distribution Schematic	55-1-141
POWER DISTRIBUTION SYMPTOM CHART	55-1-142
Diagnostic Tests	55-1-143
AUDIO SYSTEM	55-1-145
Audio System Circuit Operation	55-1-145
Audio System Circuit Troubleshooting	55-1-145
Audio System Symptom Chart	55-1-145
Audio System Diagnostic Tests	55-1-147
CHARGING SYSTEM	55-1-151
Charging System Circuit Operation	55-1-151
Charging System Circuit Troubleshooting	55-1-151
Charging System Symptom Chart	55-1-152
Charging System Diagnostic Tests	55-1-153
EXTERIOR LIGHTING SYSTEM	55-1-157
Exterior Lighting System Circuit Operation	55-1-157
Exterior Lighting System Circuit Troubleshooting	55-1-157
Exterior Lighting System Symptom Chart	55-1-158
Exterior Lighting System Diagnostic Tests	55-1-158
INSTRUMENTATION AND WARNING SYSTEM	55-1-163
Instrumentation and Warning System Circuit Troubleshooting	55-1-163

TG215/245/275/305 MASTER TABLE OF CONTENTS

Instrumentation and Warning System Symptom Chart	55-1-163
Instrumentation and Warning System Diagnostic Tests	55-1-164
INTERIOR LIGHTING AND HORN SYSTEM	55-1-167
Interior Lighting and Horn System Circuit Operation	55-1-167
Interior Lighting and Horn System Circuit Troubleshooting	55-1-167
Interior Lighting and Horn System Symptom Chart	55-1-168
Interior Lighting and Horn System Diagnostic Tests	55-1-168
POWER MIRROR SYSTEM	55-1-172
Power Mirror Circuit Operation	55-1-172
Power Mirror Circuit Troubleshooting	55-1-172
Power Mirror System Symptom Chart	55-1-173
Power Mirror System Diagnostic Tests	55-1-175
POWER SEAT SYSTEM	55-1-184
Power Seat System Circuit Operation	55-1-184
Power Seat System Circuit Troubleshooting	55-1-184
Power Seat System Symptom Chart	55-1-185
Power Seat System Diagnostic Tests	55-1-186
STARTING SYSTEM	55-1-190
Starting System Circuit Operation	55-1-190
Starter Motor Circuit Troubleshooting	55-1-190
Starting System Symptom Chart	55-1-190
Starting System Diagnostic Tests	55-1-192
WIPER/WASHER SYSTEM	55-1-197
Wiper/Washer System Circuit Operation	55-1-197
Wiper/Washer System Circuit Troubleshooting	55-1-197
Wiper/Washer System Symptom Chart	55-1-198
Wiper/Washer System Diagnostic Tests	55-1-199

BOOK 6 - 87609386

INSTRUMENTATION CONTROLLER FAULT CODES	SECTION 55, CHAPTER 2
FAULT CODE INST 1015	55-2-4
FAULT CODE INST 3010	55-2-6
FAULT CODE INST 3020	55-2-7
FAULT CODE INST 3022	55-2-7
FAULT CODE INST 5010	55-2-7
FAULT CODE INST 5011	55-2-8
FAULT CODE INST 10031	55-2-9
FAULT CODE INST 10032	55-2-9
FAULT CODE INST 10033	55-2-9
FAULT CODE INST 10034	55-2-10
FAULT CODE INST 10035	55-2-10
FAULT CODE INST 10036	55-2-10
FAULT CODE INST 10037	55-2-11
FAULT CODE INST 10038	55-2-11
FAULT CODE INST 11011	55-2-12
FAULT CODE INST 12011	55-2-13
FAULT CODE INST 12043	55-2-15
FAULT CODE INST 12051	55-2-17
FAULT CODE INST 12071	55-2-19
FAULT CODE INST 12091	55-2-21
FAULT CODE INST 12111	55-2-23
FAULT CODE INST 13010	55-2-25
FAULT CODE INST 13011	55-2-26
FAULT CODE INST 13012	55-2-27
FAULT CODE INST 13021	55-2-28
FAULT CODE INST 13022	55-2-29

TG215/245/275/305 MASTER TABLE OF CONTENTS

FAULT CODE INST 13040	55-2-30
FAULT CODE INST 13051	55-2-31
FAULT CODE INST 13052	55-2-32
FAULT CODE INST 53001	55-2-33
FAULT CODE INST 53005	55-2-33
FAULT CODE INST 65535	55-2-33
AUX/HITCH/PTO FAULT CODES -	
TRACTOR MULTI-FUNCTION (TMF) CONTROLLER	SECTION 55, CHAPTER 3
AUX/HITCH/PTO FAULT CODE 2	55-3-7
AUX/HITCH/PTO FAULT CODE 4	55-3-8
AUX/HITCH/PTO FAULT CODE 5	55-3-9
AUX/HITCH/PTO FAULT CODE 7	55-3-10
AUX/HITCH/PTO FAULT CODE 11	55-3-11
AUX/HITCH/PTO FAULT CODE 12	55-3-13
AUX/HITCH/PTO FAULT CODE 14	55-3-14
AUX/HITCH/PTO FAULT CODE 15	55-3-15
AUX/HITCH/PTO FAULT CODE 17	55-3-16
AUX/HITCH/PTO FAULT CODE 18	55-3-17
AUX/HITCH/PTO FAULT CODE 19	55-3-18
AUX/HITCH/PTO FAULT CODE 21	55-3-18
AUX/HITCH/PTO FAULT CODE 22	55-3-19
AUX/HITCH/PTO FAULT CODE 23	55-3-20
AUX/HITCH/PTO FAULT CODE 24	55-3-21
AUX/HITCH/PTO FAULT CODE 25	55-3-22
AUX/HITCH/PTO FAULT CODE 26	55-3-23
AUX/HITCH/PTO FAULT CODE 28	55-3-24
AUX/HITCH/PTO FAULT CODE 29	55-3-24
AUX/HITCH/PTO FAULT CODE 30	55-3-25
AUX/HITCH/PTO FAULT CODE 31	55-3-26
AUX/HITCH/PTO FAULT CODE 32	55-3-28
AUX/HITCH/PTO FAULT CODE 33	55-3-29
AUX/HITCH/PTO FAULT CODE 34	55-3-29
AUX/HITCH/PTO FAULT CODE 35	55-3-30
AUX/HITCH/PTO FAULT CODE 37	55-3-31
AUX/HITCH/PTO FAULT CODE 41	55-3-31
AUX/HITCH/PTO FAULT CODE 42	55-3-32
AUX/HITCH/PTO FAULT CODE 43	55-3-32
AUX/HITCH/PTO FAULT CODE 44	55-3-32
AUX/HITCH/PTO FAULT CODE 45	55-3-32
AUX/HITCH/PTO FAULT CODE 47	55-3-33
AUX/HITCH/PTO FAULT CODE 48	55-3-33
AUX/HITCH/PTO FAULT CODE 50	55-3-34
AUX/HITCH/PTO FAULT CODE 51	55-3-34
AUX/HITCH/PTO FAULT CODE 52	55-3-35
AUX/HITCH/PTO FAULT CODE 53	55-3-35
AUX/HITCH/PTO FAULT CODE 54	55-3-36
AUX/HITCH/PTO FAULT CODE 55	55-3-37
AUX/HITCH/PTO FAULT CODE 56	55-3-38
AUX/HITCH/PTO FAULT CODE 57	55-3-39
AUX/HITCH/PTO FAULT CODE 58	55-3-40
AUX/HITCH/PTO FAULT CODE 59	55-3-41
AUX/HITCH/PTO FAULT CODE 60	55-3-41
AUX/HITCH/PTO FAULT CODE 61	55-3-42
AUX/HITCH/PTO FAULT CODE 62	55-3-42
AUX/HITCH/PTO FAULT CODE 63	55-3-42
AUX/HITCH/PTO FAULT CODE 64	55-3-43

TG215/245/275/305 MASTER TABLE OF CONTENTS

AUX/HITCH/PTO FAULT CODE 65	55-3-43
AUX/HITCH/PTO FAULT CODE 66	55-3-44
AUX/HITCH/PTO FAULT CODE 80	55-3-44
AUX/HITCH/PTO FAULT CODE 81	55-3-45
AUX/HITCH/PTO FAULT CODE 82	55-3-46
AUX/HITCH/PTO FAULT CODE 83	55-3-47
AUX/HITCH/PTO FAULT CODE 86	55-3-48
AUX/HITCH/PTO FAULT CODE 87	55-3-49
AUX/HITCH/PTO FAULT CODE 88	55-3-50
AUX/HITCH/PTO FAULT CODE 89	55-3-50
AUX/HITCH/PTO FAULT CODE 90	55-3-51
AUX/HITCH/PTO FAULT CODE 92	55-3-51
AUX/HITCH/PTO FAULT CODE 93	55-3-52
AUX/HITCH/PTO FAULT CODE 94	55-3-52
AUX/HITCH/PTO FAULT CODE 98	55-3-53
AUX/HITCH/PTO FAULT CODE 99	55-3-53
AUX/HITCH/PTO FAULT CODE 106	55-3-54
AUX/HITCH/PTO FAULT CODE 107	55-3-54
AUX/HITCH/PTO FAULT CODE 108	55-3-55
AUX/HITCH/PTO FAULT CODE 109	55-3-55
AUX/HITCH/PTO FAULT CODE 110	55-3-56
AUX/HITCH/PTO FAULT CODE 111	55-3-56
AUX/HITCH/PTO FAULT CODE 112	55-3-57
AUX/HITCH/PTO FAULT CODE 113	55-3-58
AUX/HITCH/PTO FAULT CODE 114	55-3-59
AUX/HITCH/PTO FAULT CODE 115	55-3-60
AUX/HITCH/PTO FAULT CODE 116	55-3-61
AUX/HITCH/PTO FAULT CODE 120	55-3-62
AUX/HITCH/PTO FAULT CODE 123	55-3-62
AUX/HITCH/PTO FAULT CODE 124	55-3-63
AUX/HITCH/PTO FAULT CODE 125	55-3-64
AUX/HITCH/PTO FAULT CODE 126	55-3-65
AUX/HITCH/PTO FAULT CODE 127	55-3-66
AUX/HITCH/PTO FAULT CODE 128	55-3-67
AUX/HITCH/PTO FAULT CODE 129	55-3-68
AUX/HITCH/PTO FAULT CODE 130	55-3-69
AUX/HITCH/PTO FAULT CODE 131	55-3-70
AUX/HITCH/PTO FAULT CODE 132	55-3-71
AUX/HITCH/PTO FAULT CODE 133	55-3-72
AUX/HITCH/PTO FAULT CODE 134	55-3-73
AUX/HITCH/PTO FAULT CODE 135	55-3-74
AUX/HITCH/PTO FAULT CODE 136	55-3-75
AUX/HITCH/PTO FAULT CODE 137	55-3-76
AUX/HITCH/PTO FAULT CODE 138	55-3-77
AUX/HITCH/PTO FAULT CODE 139	55-3-78
AUX/HITCH/PTO FAULT CODE 140	55-3-79
AUX/HITCH/PTO FAULT CODE 141	55-3-80
AUX/HITCH/PTO FAULT CODE 142	55-3-81
AUX/HITCH/PTO FAULT CODE 147	55-3-82
AUX/HITCH/PTO FAULT CODE 148	55-3-82
AUX/HITCH/PTO FAULT CODE 149	55-3-83
AUX/HITCH/PTO FAULT CODE 150	55-3-83
AUX/HITCH/PTO FAULT CODE 151	55-3-84
AUX/HITCH/PTO FAULT CODE 152	55-3-86
AUX/HITCH/PTO FAULT CODE 153	55-3-86
AUX/HITCH/PTO FAULT CODE 154	55-3-87
AUX/HITCH/PTO FAULT CODE 155	55-3-87

TG215/245/275/305 MASTER TABLE OF CONTENTS

AUX/HITCH/PTO FAULT CODE 156	55-3-88
AUX/HITCH/PTO FAULT CODE 157	55-3-88
AUX/HITCH/PTO FAULT CODE 158	55-3-89
AUX/HITCH/PTO FAULT CODE 159	55-3-89
AUX/HITCH/PTO FAULT CODE 160	55-3-90
AUX/HITCH/PTO FAULT CODE 161	55-3-91
AUX/HITCH/PTO FAULT CODE 162	55-3-92
AUX/HITCH/PTO FAULT CODE 163	55-3-93
AUX/HITCH/PTO FAULT CODE 164	55-3-94
AUX/HITCH/PTO FAULT CODE 165	55-3-95
AUX/HITCH/PTO FAULT CODE 166	55-3-96
AUX/HITCH/PTO FAULT CODE 167	55-3-97
AUX/HITCH/PTO FAULT CODE 168	55-3-98
AUX/HITCH/PTO FAULT CODE 169	55-3-99
AUX/HITCH/PTO FAULT CODE 170	55-3-100
AUX/HITCH/PTO FAULT CODE 171	55-3-101
AUX/HITCH/PTO FAULT CODE 172	55-3-101
AUX/HITCH/PTO FAULT CODE 173	55-3-102
AUX/HITCH/PTO FAULT CODE 174	55-3-103
AUX/HITCH/PTO FAULT CODE 175	55-3-104
AUX/HITCH/PTO FAULT CODE 178	55-3-106
AUX/HITCH/PTO FAULT CODE 179	55-3-107
AUX/HITCH/PTO FAULT CODE 180	55-3-108
 TRANSMISSION CONTROLLER FAULT CODESSECTION 55, CHAPTER 4	
FAULT CODE TRANS 11	55-4-5
FAULT CODE TRANS 12	55-4-6
FAULT CODE TRANS 24	55-4-7
FAULT CODE TRANS 37	55-4-8
FAULT CODE TRANS	55-4-9
FAULT CODE TRANS 47	55-4-10
FAULT CODE TRANS 48	55-4-12
FAULT CODE TRANS 49	55-4-13
FAULT COE TRANS 50	55-4-14
FAULT CODE TRANS 51	55-4-15
FAULT CODE TRANS 52	55-4-16
FAULT CODE TRANS 53	55-4-17
FAULT CODE TRANS 54	55-4-19
FAULT CODE TRANS 59	55-4-21
FAULT CODE TRANS 60	55-4-22
FAULT CODE TRANS 66	55-4-23
FAULT CODE TRANS 67	55-4-24
FAULT CODE TRANS 68	55-4-25
FAULT CODE TRANS 69	55-4-26
FAULT CODE TRANS 70	55-4-27
FAULT CODE TRANS 72	55-4-27
FAULT CODE TRANS 73	55-4-28
FAULT CODE TRANS 74	55-4-28
FAULT CODE TRANS 77	55-4-29
FAULT CODE TRANS 78	55-4-30
FAULT CODE TRANS 79	55-4-31
FAULT CODE TRANS 80	55-4-32
FAULT CODE TRANS 81	55-4-34
FAULT CODE TRANS 82	55-4-36
FAULT CODE TRANS 83	55-4-36
FAULT CODE TRANS 103	55-4-37
FAULT CODE TRANS 104	55-4-38

TG215/245/275/305 MASTER TABLE OF CONTENTS

FAULT CODE TRANS 105	55-4-39
FAULT CODE TRANS 106	55-4-40
FAULT CODE TRANS 107	55-4-41
FAULT CODE TRANS 108	55-4-42
FAULT CODE TRANS 109	55-4-43
FAULT CODE TRANS 110	55-4-44
FAULT CODE TRANS 111	55-4-45
FAULT CODE TRANS 112	55-4-46
FAULT CODE TRANS 113	55-4-47
FAULT CODE TRANS 114	55-4-48
FAULT CODE TRANS 115	55-4-49
FAULT CODE TRANS 116	55-4-50
FAULT CODE TRANS 117	55-4-51
FAULT CODE TRANS 118	55-4-52
FAULT CODE TRANS 119	55-4-53
FAULT CODE TRANS 120	55-4-54
FAULT CODE TRANS 121	55-4-55
FAULT CODE TRANS 122	55-4-56
FAULT CODE TRANS 123	55-4-57
FAULT CODE TRANS 124	55-4-58
FAULT CODE TRANS 125	55-4-59
FAULT CODE TRANS 126	55-4-59
FAULT CODE TRANS 127	55-4-59
FAULT CODE TRANS 128	55-4-60
FAULT CODE TRANS 129	55-4-60
FAULT CODE TRANS 130	55-4-60
FAULT CODE TRANS 131	55-4-61
FAULT CODE TRANS 132	55-4-61
FAULT CODE TRANS 133	55-4-61
FAULT CODE TRANS 134	55-4-62
FAULT CODE TRANS 135	55-4-63
FAULT CODE TRANS 136	55-4-65
FAULT CODE TRANS 137	55-4-67
FAULT CODE TRANS 138	55-4-68
FAULT CODE TRANS 139	55-4-69
FAULT CODE TRANS 140	55-4-70
FAULT CODE TRANS 141	55-4-71
FAULT CODE TRANS 142	55-4-72
FAULT CODE TRANS 143	55-4-72
FAULT CODE TRANS 144	55-4-73
FAULT CODE TRANS 145	55-4-74
FAULT CODE TRANS 147	55-4-75
FAULT CODE TRANS 148	55-4-77
ARMREST CONTROLLER FAULT CODESSECTION 55, CHAPTER 5	
FAULT CODE ARM 19	55-5-4
FAULT CODE ARM 29	55-5-5
FAULT CODE ARM 39	55-5-6
FAULT CODE ARM 49	55-5-7
FAULT CODE ARM 59	55-5-8
FAULT CODE ARM 69	55-5-9
FAULT CODE ARM 79	55-5-10
FAULT CODE ARM 89	55-5-11
FAULT CODE ARM 99	55-5-12
FAULT CODE ARM 109	55-5-13
FAULT CODE ARM 119	55-5-14
FAULT CODE ARM 129	55-5-15

TG215/245/275/305 MASTER TABLE OF CONTENTS

FAULT CODE ARM 139	55-5-16
FAULT CODE ARM 149	55-5-17
FAULT CODE ARM 159	55-5-18
FAULT CODE ARM 169	55-5-19
FAULT CODE ARM 1029	55-5-20
FAULT CODE ARM 1039	55-5-21
FAULT CODE ARM 1049	55-5-22
FAULT CODE ARM 1059	55-5-23
FAULT CODE ARM 1069	55-5-24
FAULT CODE ARM 1079	55-5-25
FAULT CODE ARM 1089	55-5-26
FAULT CODE ARM 1099	55-5-27
FAULT CODE ARM 1109	55-5-28
FAULT CODE ARM 1119	55-5-29
FAULT CODE ARM 1129	55-5-30
FAULT CODE ARM 8011	55-5-30
FAULT CODE ARM 9011	55-5-31
FAULT CODE ARM 9012	55-5-31
FAULT CODE ARM 9013	55-5-32
FAULT CODE ARM 9014	55-5-32
FAULT CODE ARM 9015	55-5-33
FAULT CODE ARM 9021	55-5-33
FAULT CODE ARM 9031	55-5-34
FAULT CODE ARM 9041	55-5-34
FAULT CODE ARM 10091	55-5-35
FAULT CODE ARM 12013	55-5-36
FAULT CODE ARM 12081	55-5-38
FAULT CODE ARM 65535	55-5-39
CONTROLLER CONFIGURATION AND CALIBRATION	SECTION 55, CHAPTER 6
FAULT CODE RETRIEVAL	55-6-3
INSTRUMENTATION PROGRAMMING	55-6-5
Radar Calibration	55-6-11
Old Hours	55-6-14
Controller Configuration	55-6-16
INSTRUMENTATION DISPLAY SYMPTOM BASED FAULTS	55-6-21
ARMREST CONTROLLER CONFIGURATION AND CALIBRATION	55-6-23
TRANSMISSION CONTROLLER CONFIGURATION AND CALIBRATION	55-6-39
When Calibration is Required	55-6-40
Clutch Calibration Procedure	55-6-56
Calibration Error Messages	55-6-62
Front Suspension Calibration	55-6-69
REMOTE (AUX) SYSTEM CALIBRATION	55-6-80
Aux Cal Menu	55-6-88
HITCH SYSTEM CALIBRATION	55-6-92
PTO SYSTEM CONFIGURATION	55-6-106
PEDAL AND PEDAL SWITCH ADJUSTMENTS.....	SECTION 90, CHAPTER 1
TABLE OF CONTENTS	90-1-2
INCHING PEDAL SWITCH ADJUSTMENT	90-1-3
BRAKE PEDAL ADJUSTMENTS	90-1-3

TG215/245/275/305 MASTER TABLE OF CONTENTS

CAB RAISE/REMOVAL AND INSTALLATION.....	SECTION 90, CHAPTER 2
SPECIAL TORQUES	90-2-3
SPECIAL TOOLS	90-2-3
CAB RAISE PROCEDURE	90-2-4
CAB LOWERING PROCEDURE	90-2-7
CAB REMOVAL	90-2-10
CAB INSTALLATION	90-2-17

BOOK 6a - 87611219

ELECTRICAL SYSTEM - HOW IT WORKS AND TROUBLESHOOTING, P.I.N. Z6RW04001 AND AFTER	SECTION 55, CHAPTER 7
SPECIAL TOOLS	55-7-4
FUSES AND RELAY IDENTIFICATION	55-7-5
INSTRUMENTATION AND CONTROLS	55-7-8
CONNECTOR AND COMPONENT LOCATIONS	55-7-12
ELECTRICAL CONNECTORS	55-7-34
ELECTRICAL SYSTEMS SCHEMATICS AND DIAGNOSTICS	55-7-143
POWER DISTRIBUTION SYMPTOM CHART	55-7-144
AUDIO SYSTEM	55-7-147
CHARGING SYSTEM	55-7-153
EXTERIOR LIGHTING SYSTEM	55-7-159
INSTRUMENTATION AND WARNING SYSTEM	55-7-165
INTERIOR LIGHTING AND HORN SYSTEM	55-7-169
POWER MIRROR SYSTEM	55-7-174
POWER SEAT SYSTEM	55-7-186
STARTING SYSTEM	55-7-192
WIPER/WASHER SYSTEM	55-7-199

BOOK 6b - 87678536

ELECTRICAL SCHEMATIC POSTER - NORTH AMERICAN, P.I.N. Z7RW01522 AND AFTER	87624275
--	----------

ELECTRICAL SYSTEM - HOW IT WORKS AND TROUBLESHOOTING, P.I.N. Z7RW01522 AND AFTER	SECTION 55, CHAPTER 8
SPECIAL TOOLS	55-8-4
FUSES AND RELAY IDENTIFICATION	55-8-5
Cab Fuses/Relay Location	55-8-5
Engine Compartment Fuse/Relay Identification (Power Distribution Box)	55-8-5
Fuse Identification	55-8-6
Relays	55-8-7
INSTRUMENTATION AND CONTROLS	55-8-8
CONNECTOR AND COMPONENT LOCATIONS	55-8-12
Cab Exterior	55-8-12
Cab Interior	55-8-15
Engine/Engine Compartment	55-8-20
Transmission	55-8-25
Hitch System	55-8-29
ELECTRICAL CONNECTORS	55-8-32
ELECTRICAL SYSTEMS SCHEMATICS AND DIAGNOSTICS	55-8-136
Power Distribution System Circuit Operation	55-8-136
Power Distribution Circuit Troubleshooting	55-8-136
Power Distribution Schematic	55-8-136
POWER DISTRIBUTION SYMPTOM CHART	55-8-137
Diagnostic Tests	55-8-138
AUDIO SYSTEM	55-8-143

TG215/245/275/305 MASTER TABLE OF CONTENTS

Audio System Circuit Operation	55-8-143
Audio System Circuit Troubleshooting	55-8-143
Audio System Symptom Chart	55-8-143
Audio System Diagnostic Tests	55-8-145
CHARGING SYSTEM	55-8-149
Charging System Circuit Operation	55-8-149
Charging System Circuit Troubleshooting	55-8-149
Charging System Symptom Chart	55-8-150
Charging System Diagnostic Tests	55-8-151
EXTERIOR LIGHTING SYSTEM	55-8-155
Exterior Lighting System Circuit Operation	55-8-155
Exterior Lighting System Circuit Troubleshooting	55-8-155
Exterior Lighting System Symptom Chart	55-8-156
Exterior Lighting System Diagnostic Tests	55-8-156
INSTRUMENTATION AND WARNING SYSTEM	55-8-161
Instrumentation and Warning System Circuit Troubleshooting	55-8-161
Instrumentation and Warning System Symptom Chart	55-8-161
Instrumentation and Warning System Diagnostic Tests	55-8-162
INTERIOR LIGHTING AND HORN SYSTEM	55-8-165
Interior Lighting and Horn System Circuit Operation	55-8-165
Interior Lighting and Horn System Circuit Troubleshooting	55-8-165
Interior Lighting and Horn System Symptom Chart	55-8-166
Interior Lighting and Horn System Diagnostic Tests	55-8-166
POWER MIRROR SYSTEM	55-8-170
Power Mirror Circuit Operation	55-8-170
Power Mirror Circuit Troubleshooting	55-8-170
Power Mirror System Symptom Chart	55-8-171
Power Mirror System Diagnostic Tests	55-8-173
POWER SEAT SYSTEM	55-8-182
Power Seat System Circuit Operation	55-8-182
Power Seat System Circuit Troubleshooting	55-8-182
Power Seat System Symptom Chart	55-8-183
Power Seat System Diagnostic Tests	55-8-184
STARTING SYSTEM	55-8-188
Starting System Circuit Operation	55-8-188
Starter Motor Circuit Troubleshooting	55-8-188
Starting System Symptom Chart	55-8-188
Starting System Diagnostic Tests	55-8-190
WIPER/WASHER SYSTEM	55-8-195
Wiper/Washer System Circuit Operation	55-8-195
Wiper/Washer System Circuit Troubleshooting	55-8-195
Wiper/Washer System Symptom Chart	55-8-196
Wiper/Washer System Diagnostic Tests	55-8-197
INSTRUMENTATION CONTROLLER FAULT CODES	SECTION 55, CHAPTER 9
FAULT CODE INST 1015	55-9-4
FAULT CODE INST 3010	55-9-5
FAULT CODE INST 3020	55-9-6
FAULT CODE INST 3022	55-9-6
FAULT CODE INST 5010	55-9-6
FAULT CODE INST 5011	55-9-7
FAULT CODE INST 10031	55-9-8
FAULT CODE INST 10032	55-9-8
FAULT CODE INST 10033	55-9-8
FAULT CODE INST 10034	55-9-9
FAULT CODE INST 10035	55-9-9

TG215/245/275/305 MASTER TABLE OF CONTENTS

FAULT CODE INST 10036	55-9-9
FAULT CODE INST 10037	55-9-10
FAULT CODE INST 10038	55-9-10
FAULT CODE INST 11011	55-9-11
FAULT CODE INST 12011	55-9-12
FAULT CODE INST 12043	55-9-14
FAULT CODE INST 12051	55-9-16
FAULT CODE INST 12071	55-9-18
FAULT CODE INST 12091	55-9-20
FAULT CODE INST 12111	55-9-22
FAULT CODE INST 12121	55-9-24
FAULT CODE INST 13010	55-9-26
FAULT CODE INST 13011	55-9-27
FAULT CODE INST 13012	55-9-28
FAULT CODE INST 13021	55-9-29
FAULT CODE INST 13022	55-9-30
FAULT CODE INST 13040	55-9-31
FAULT CODE INST 13051	55-9-32
FAULT CODE INST 13052	55-9-33
FAULT CODE INST 53001	55-9-34
FAULT CODE INST 53005	55-9-34
FAULT CODE INST 65535	55-9-34

AUX/HITCH/PTO FAULT CODES, TRACTOR MULTI-FUNCTION

(TMF) CONTROLLERSECTION 55, CHAPTER 10

AUX/HITCH/PTO FAULT CODE 2	55-10-7
AUX/HITCH/PTO FAULT CODE 4	55-10-8
AUX/HITCH/PTO FAULT CODE 5	55-10-9
AUX/HITCH/PTO FAULT CODE 7	55-10-10
AUX/HITCH/PTO FAULT CODE 11	55-10-11
AUX/HITCH/PTO FAULT CODE 12	55-10-13
AUX/HITCH/PTO FAULT CODE 14	55-10-14
AUX/HITCH/PTO FAULT CODE 15	55-10-15
AUX/HITCH/PTO FAULT CODE 17	55-10-16
AUX/HITCH/PTO FAULT CODE 18	55-10-17
AUX/HITCH/PTO FAULT CODE 19	55-10-18
AUX/HITCH/PTO FAULT CODE 21	55-10-18
AUX/HITCH/PTO FAULT CODE 22	55-10-19
AUX/HITCH/PTO FAULT CODE 23	55-10-20
AUX/HITCH/PTO FAULT CODE 24	55-10-21
AUX/HITCH/PTO FAULT CODE 25	55-10-22
AUX/HITCH/PTO FAULT CODE 26	55-10-23
AUX/HITCH/PTO FAULT CODE 28	55-10-24
AUX/HITCH/PTO FAULT CODE 29	55-10-24
AUX/HITCH/PTO FAULT CODE 30	55-10-25
AUX/HITCH/PTO FAULT CODE 31	55-10-26
AUX/HITCH/PTO FAULT CODE 32	55-10-28
AUX/HITCH/PTO FAULT CODE 33	55-10-29
AUX/HITCH/PTO FAULT CODE 34	55-10-29
AUX/HITCH/PTO FAULT CODE 35	55-10-30
AUX/HITCH/PTO FAULT CODE 37	55-10-31
AUX/HITCH/PTO FAULT CODE 41	55-10-31
AUX/HITCH/PTO FAULT CODE 42	55-10-32
AUX/HITCH/PTO FAULT CODE 43	55-10-32
AUX/HITCH/PTO FAULT CODE 44	55-10-32
AUX/HITCH/PTO FAULT CODE 45	55-10-32
AUX/HITCH/PTO FAULT CODE 47	55-10-33

TG215/245/275/305 MASTER TABLE OF CONTENTS

AUX/HITCH/PTO FAULT CODE 48	55-10-33
AUX/HITCH/PTO FAULT CODE 50	55-10-34
AUX/HITCH/PTO FAULT CODE 51	55-10-34
AUX/HITCH/PTO FAULT CODE 52	55-10-35
AUX/HITCH/PTO FAULT CODE 53	55-10-35
AUX/HITCH/PTO FAULT CODE 54	55-10-36
AUX/HITCH/PTO FAULT CODE 55	55-10-37
AUX/HITCH/PTO FAULT CODE 56	55-10-38
AUX/HITCH/PTO FAULT CODE 57	55-10-39
AUX/HITCH/PTO FAULT CODE 58	55-10-40
AUX/HITCH/PTO FAULT CODE 59	55-10-41
AUX/HITCH/PTO FAULT CODE 60	55-10-41
AUX/HITCH/PTO FAULT CODE 61	55-10-42
AUX/HITCH/PTO FAULT CODE 62	55-10-42
AUX/HITCH/PTO FAULT CODE 63	55-10-42
AUX/HITCH/PTO FAULT CODE 64	55-10-43
AUX/HITCH/PTO FAULT CODE 65	55-10-43
AUX/HITCH/PTO FAULT CODE 66	55-10-44
AUX/HITCH/PTO FAULT CODE 80	55-10-44
AUX/HITCH/PTO FAULT CODE 81	55-10-45
AUX/HITCH/PTO FAULT CODE 82	55-10-46
AUX/HITCH/PTO FAULT CODE 83	55-10-47
AUX/HITCH/PTO FAULT CODE 86	55-10-48
AUX/HITCH/PTO FAULT CODE 87	55-10-49
AUX/HITCH/PTO FAULT CODE 88	55-10-50
AUX/HITCH/PTO FAULT CODE 89	55-10-50
AUX/HITCH/PTO FAULT CODE 90	55-10-51
AUX/HITCH/PTO FAULT CODE 92	55-10-51
AUX/HITCH/PTO FAULT CODE 93	55-10-52
AUX/HITCH/PTO FAULT CODE 94	55-10-52
AUX/HITCH/PTO FAULT CODE 98	55-10-53
AUX/HITCH/PTO FAULT CODE 99	55-10-53
AUX/HITCH/PTO FAULT CODE 106	55-10-54
AUX/HITCH/PTO FAULT CODE 107	55-10-54
AUX/HITCH/PTO FAULT CODE 108	55-10-55
AUX/HITCH/PTO FAULT CODE 109	55-10-55
AUX/HITCH/PTO FAULT CODE 110	55-10-56
AUX/HITCH/PTO FAULT CODE 111	55-10-56
AUX/HITCH/PTO FAULT CODE 112	55-10-57
AUX/HITCH/PTO FAULT CODE 113	55-10-58
AUX/HITCH/PTO FAULT CODE 114	55-10-59
AUX/HITCH/PTO FAULT CODE 115	55-10-60
AUX/HITCH/PTO FAULT CODE 116	55-10-61
AUX/HITCH/PTO FAULT CODE 120	55-10-62
AUX/HITCH/PTO FAULT CODE 123	55-10-62
AUX/HITCH/PTO FAULT CODE 124	55-10-63
AUX/HITCH/PTO FAULT CODE 125	55-10-64
AUX/HITCH/PTO FAULT CODE 126	55-10-65
AUX/HITCH/PTO FAULT CODE 127	55-10-66
AUX/HITCH/PTO FAULT CODE 128	55-10-67
AUX/HITCH/PTO FAULT CODE 129	55-10-68
AUX/HITCH/PTO FAULT CODE 130	55-10-69
AUX/HITCH/PTO FAULT CODE 131	55-10-70
AUX/HITCH/PTO FAULT CODE 132	55-10-71
AUX/HITCH/PTO FAULT CODE 133	55-10-72
AUX/HITCH/PTO FAULT CODE 134	55-10-73
AUX/HITCH/PTO FAULT CODE 135	55-10-74

TG215/245/275/305 MASTER TABLE OF CONTENTS

AUX/HITCH/PTO FAULT CODE 136	55-10-75
AUX/HITCH/PTO FAULT CODE 137	55-10-76
AUX/HITCH/PTO FAULT CODE 138	55-10-77
AUX/HITCH/PTO FAULT CODE 139	55-10-78
AUX/HITCH/PTO FAULT CODE 140	55-10-79
AUX/HITCH/PTO FAULT CODE 141	55-10-80
AUX/HITCH/PTO FAULT CODE 142	55-10-81
AUX/HITCH/PTO FAULT CODE 147	55-10-82
AUX/HITCH/PTO FAULT CODE 148	55-10-82
AUX/HITCH/PTO FAULT CODE 149	55-10-83
AUX/HITCH/PTO FAULT CODE 150	55-10-83
AUX/HITCH/PTO FAULT CODE 151	55-10-84
AUX/HITCH/PTO FAULT CODE 152	55-10-86
AUX/HITCH/PTO FAULT CODE 153	55-10-86
AUX/HITCH/PTO FAULT CODE 154	55-10-87
AUX/HITCH/PTO FAULT CODE 155	55-10-87
AUX/HITCH/PTO FAULT CODE 156	55-10-88
AUX/HITCH/PTO FAULT CODE 157	55-10-88
AUX/HITCH/PTO FAULT CODE 158	55-10-89
AUX/HITCH/PTO FAULT CODE 159	55-10-89
AUX/HITCH/PTO FAULT CODE 160	55-10-90
AUX/HITCH/PTO FAULT CODE 161	55-10-91
AUX/HITCH/PTO FAULT CODE 162	55-10-92
AUX/HITCH/PTO FAULT CODE 163	55-10-93
AUX/HITCH/PTO FAULT CODE 164	55-10-94
AUX/HITCH/PTO FAULT CODE 165	55-10-95
AUX/HITCH/PTO FAULT CODE 166	55-10-96
AUX/HITCH/PTO FAULT CODE 167	55-10-97
AUX/HITCH/PTO FAULT CODE 168	55-10-98
AUX/HITCH/PTO FAULT CODE 169	55-10-99
AUX/HITCH/PTO FAULT CODE 170	55-10-100
AUX/HITCH/PTO FAULT CODE 171	55-10-101
AUX/HITCH/PTO FAULT CODE 172	55-10-101
AUX/HITCH/PTO FAULT CODE 173	55-10-102
AUX/HITCH/PTO FAULT CODE 174	55-10-103
AUX/HITCH/PTO FAULT CODE 175	55-10-104
AUX/HITCH/PTO FAULT CODE 178	55-10-106
AUX/HITCH/PTO FAULT CODE 179	55-10-107
AUX/HITCH/PTO FAULT CODE 180	55-10-108

TRANSMISSION CONTROLLER FAULT CODES

(INCLUDES SUSPENDED AXLE)	SECTION 55, CHAPTER 11
FAULT CODE TRANS 11	55-11-5
FAULT CODE TRANS 12	55-11-6
FAULT CODE TRANS 24	55-11-7
FAULT CODE TRANS 37	55-11-8
FAULT CODE TRANS 38	55-11-9
FAULT CODE TRANS 47	55-11-10
FAULT CODE TRANS 48	55-11-12
FAULT CODE TRANS 49	55-11-13
FAULT CODE TRANS 50	55-11-14
FAULT CODE TRANS 51	55-11-15
FAULT CODE TRANS 52	55-11-16
FAULT CODE TRANS 53	55-11-17
FAULT CODE TRANS 54	55-11-18
FAULT CODE TRANS 59	55-11-19
FAULT CODE TRANS 60	55-11-20

TG215/245/275/305 MASTER TABLE OF CONTENTS

FAULT CODE TRANS 65	55-11-21
FAULT CODE TRANS 66	55-11-22
FAULT CODE TRANS 67	55-11-23
FAULT CODE TRANS 68	55-11-24
FAULT CODE TRANS 69	55-11-25
FAULT CODE TRANS 70	55-11-26
FAULT CODE TRANS 72	55-11-26
FAULT CODE TRANS 73	55-11-27
FAULT CODE TRANS 74	55-11-27
FAULT CODE TRANS 75	55-11-28
FAULT CODE TRANS 76	55-11-29
FAULT CODE TRANS 77	55-11-30
FAULT CODE TRANS 78	55-11-31
FAULT CODE TRANS 79	55-11-32
FAULT CODE TRANS 80	55-11-33
FAULT CODE TRANS 81	55-11-35
FAULT CODE TRANS 82	55-11-37
FAULT CODE TRANS 83	55-11-37
FAULT CODE TRANS 103	55-11-38
FAULT CODE TRANS 104	55-11-39
FAULT CODE TRANS 105	55-11-40
FAULT CODE TRANS 106	55-11-41
FAULT CODE TRANS 107	55-11-42
FAULT CODE TRANS 108	55-11-43
FAULT CODE TRANS 109	55-11-44
FAULT CODE TRANS 110	55-11-45
FAULT CODE TRANS 111	55-11-46
FAULT CODE TRANS 112	55-11-47
FAULT CODE TRANS 113	55-11-48
FAULT CODE TRANS 114	55-11-49
FAULT CODE TRANS 115	55-11-50
FAULT CODE TRANS 116	55-11-51
FAULT CODE TRANS 117	55-11-52
FAULT CODE TRANS 118	55-11-53
FAULT CODE TRANS 119	55-11-54
FAULT CODE TRANS 120	55-11-55
FAULT CODE TRANS 121	55-11-56
FAULT CODE TRANS 122	55-11-57
FAULT CODE TRANS 123	55-11-58
FAULT CODE TRANS 124	55-11-59
FAULT CODE TRANS 125	55-11-60
FAULT CODE TRANS 126	55-11-60
FAULT CODE TRANS 127	55-11-60
FAULT CODE TRANS 128	55-11-61
FAULT CODE TRANS 129	55-11-61
FAULT CODE TRANS 130	55-11-61
FAULT CODE TRANS 131	55-11-62
FAULT CODE TRANS 132	55-11-62
FAULT CODE TRANS 133	55-11-62
FAULT CODE TRANS 134	55-11-63
FAULT CODE TRANS 135	55-11-64
FAULT CODE TRANS 136	55-11-66
FAULT CODE TRANS 137	55-11-68
FAULT CODE TRANS 138	55-11-69
FAULT CODE TRANS 139	55-11-70
FAULT CODE TRANS 140	55-11-71
FAULT CODE TRANS 141	55-11-72

TG215/245/275/305 MASTER TABLE OF CONTENTS

FAULT CODE TRANS 142	55-11-73
FAULT CODE TRANS 143	55-11-73
FAULT CODE TRANS 144	55-11-74
FAULT CODE TRANS 145	55-11-75
FAULT CODE TRANS 146	55-11-76
FAULT CODE TRANS 147	55-11-77
FAULT CODE TRANS 148	55-11-79
ARMREST CONTROLLER FAULT CODES	SECTION 55, CHAPTER 12
FAULT CODE ARM 19	55-12-4
FAULT CODE ARM 29	55-12-5
FAULT CODE ARM 39	55-12-6
FAULT CODE ARM 49	55-12-7
FAULT CODE ARM 59	55-12-8
FAULT CODE ARM 69	55-12-9
FAULT CODE ARM 79	55-12-10
FAULT CODE ARM 89	55-12-11
FAULT CODE ARM 99	55-12-12
FAULT CODE ARM 109	55-12-13
FAULT CODE ARM 119	55-12-14
FAULT CODE ARM 129	55-12-15
FAULT CODE ARM 139	55-12-16
FAULT CODE ARM 149	55-12-17
FAULT CODE ARM 159	55-12-18
FAULT CODE ARM 169	55-12-19
FAULT CODE ARM 1029	55-12-20
FAULT CODE ARM 1039	55-12-21
FAULT CODE ARM 1049	55-12-22
FAULT CODE ARM 1059	55-12-23
FAULT CODE ARM 1069	55-12-24
FAULT CODE ARM 1079	55-12-25
FAULT CODE ARM 1089	55-12-26
FAULT CODE ARM 1099	55-12-27
FAULT CODE ARM 1109	55-12-28
FAULT CODE ARM 1119	55-12-29
FAULT CODE ARM 1129	55-12-30
FAULT CODE ARM 8011	55-12-30
FAULT CODE ARM 9011	55-12-31
FAULT CODE ARM 9012	55-12-31
FAULT CODE ARM 9013	55-12-32
FAULT CODE ARM 9014	55-12-32
FAULT CODE ARM 9015	55-12-33
FAULT CODE ARM 9021	55-12-33
FAULT CODE ARM 9031	55-12-34
FAULT CODE ARM 9041	55-12-34
FAULT CODE ARM 10091	55-12-35
FAULT CODE ARM 12013	55-12-36
FAULT CODE ARM 12081	55-12-38
FAULT CODE ARM 65535	55-12-39

This Page Left Blank.

Section 00

Chapter 1

STANDARD TORQUE SPECIFICATION

TABLE OF CONTENTS

TORQUE SPECIFICATIONS - METRIC HARDWARE	00-1-4
TORQUE SPECIFICATIONS - STEEL HYDRAULIC FITTINGS	00-1-5
TORQUE SPECIFICATIONS - STEEL HYDRAULIC FITTINGS	00-1-6

TORQUE SPECIFICATIONS - DECIMAL HARDWARE

Use the torques in this chart when special torques are not given. These torques apply to fasteners with both UNC and UNF threads as received from suppliers dry, or when lubricated with engine oil. Not applicable if special graphites, Molydisulfide greases, or other extreme pressure lubricants are used.

Grade 5 Bolts, Nuts, and Studs		
  		
Size	Pound-Inches	Newton metres
1/4 inch	108 to 132	12 to 15
5/16 inch	204 to 252	23 to 28
3/8 inch	420 to 504	48 to 57
Size	Pound-Feet	Newton metres
7/16 inch	54 to 64	73 to 87
1/2 inch	80 to 96	109 to 130
9/16 inch	110 to 132	149 to 179
5/8 inch	150 to 180	203 to 244
3/4 inch	270 to 324	366 to 439
7/8 inch	400 to 480	542 to 651
1.0 inch	580 to 696	787 to 944
1-1/8 inch	800 to 880	1085 to 1193
1-1/4 inch	1120 to 1240	1519 to 1681
1-3/8 inch	1460 to 1680	1980 to 2278
1-1/2 inch	1940 to 2200	2631 to 2983

Grade 8 Bolts, Nuts, and Studs		
  		
Size	Pound-Inches	Newton metres
1/4 inch	144 to 180	16 to 20
5/16 inch	288 to 348	33 to 39
3/8 inch	540 to 648	61 to 73
Size	Pound-Feet	Newton metres
7/16 inch	70 to 84	95 to 114
1/2 inch	110 to 132	149 to 179
9/16 inch	160 to 192	217 to 260
5/8 inch	220 to 264	298 to 358
3/4 inch	380 to 456	515 to 618
7/8 inch	600 to 720	814 to 976
1.0 inch	900 to 1080	1220 to 1465
1-1/8 inch	1280 to 1440	1736 to 1953
1-1/4 inch	1820 to 2000	2468 to 2712
1-3/8 inch	2380 to 2720	3227 to 3688
1-1/2 inch	3160 to 3560	4285 to 4827
NOTE: Use thick nuts with Grade 8 bolts.		

TORQUE SPECIFICATIONS - METRIC HARDWARE

Use the following torques when specifications are not given.

These values apply to fasteners with coarse threads as received from supplier, plated or unplated, or when lubricated with engine oil. These values do not apply if graphite or Molydisulfide grease or oil is used.

Grade 8.8 Bolts, Nuts, and Studs		
		
Size	Pound-Inches	Newton metres
M4	24 to 36	3 to 4
M5	60 to 72	7 to 8
M6	96 to 108	11 to 12
M8	228 to 276	26 to 31
M10	456 to 540	52 to 61
Size	Pound-Feet	Newton metres
M12	66 to 79	90 to 107
M14	106 to 127	144 to 172
M16	160 to 200	217 to 271
M20	320 to 380	434 to 515
M24	500 to 600	675 to 815
M30	920 to 1100	1250 to 1500
M36	1600 to 1950	2175 to 2600

Grade 10.9 Bolts, Nuts, and Studs		
		
Size	Pound-Inches	Newton metres
M4	36 to 48	4 to 5
M5	84 to 96	9 to 11
M6	132 to 156	15 to 18
M8	324 to 384	37 to 43
Size	Pound-Feet	Newton metres
M10	54 to 64	73 to 87
M12	93 to 112	125 to 150
M14	149 to 179	200 to 245
M16	230 to 280	310 to 380
M20	450 to 540	610 to 730
M24	780 to 940	1050 to 1275
M30	1470 to 1770	2000 to 2400
M36	2580 to 3090	3500 to 4200

Grade 12.9 Bolts, Nuts, and Studs



Usually the torque values specified for grade 10.9 fasteners can be used satisfactorily on grade 12.9 fasteners.