D35
DX35
D40
DX40
D45
DX45

Tractors

SERVICE MANUAL

87622993

CASE IH AGRICULTURE

MidWestTech | Case D35, DX35, D40, DX40, D45, DX45 Tractor Service Manual | Publication 87622993

Order the manual at mid-west-tech.com >

D35, DX35, D40, DX40, D45, DX45 REPAIR MANUAL COMPLETE CONTENTS

SECTION 00 - GENERAL INFORMATION 2
SECTION 10 - ENGINE 3
SECTION 18 - CLUTCH 10
SECTION 21 - TRANSMISSION 11
SECTION 23 - DRIVELINE 14
SECTION 25 - FWD FRONT AXLE 15
SECTION 27 - DIFFERENTIAL, REAR AXLE 16
SECTION 29 - HYDROSTATIC TRANSMISSION 17
SECTION 31 - POWER TAKE-OFF (PTO) SYSTEMS 21
SECTION 33 - BRAKES 24
SECTION 35 - HYDRAULIC SYSTEM 24
SECTION 41 - STEERING 28
SECTION 44 - 2WD FRONT AXLE 29
SECTION 50 - CLIMATE CONTROL 30
SECTION 55 - ELECTRICAL SYSTEM 34
SECTION 90 - PLATFORM 51

The following pages are the collation of the contents pages from each section and chapter of the D35 – DX45 Repair manual. Complete Repair part # 87622993.

The sections used through out all Case IH product Repair manuals may not be used for each product. Each Repair manual will be made up of one or several books. Each book will be labeled as to which sections are in the overall Repair manual and which sections are in each book.

The sections listed above are the sections utilized for the D35 – DX45 Tractors, PIN number HBA015001 and above.

© 2006 CNH America LLC
Printed in U.S.A.

87622995 12/06
Replaces 87056694

MidWestTech | Case D35, DX35, D40, DX40, D45, DX45 Tractor Service Manual | Publicat... Order the manual at mid-west-tech.com >

SECTION 00 - GENERAL INFORMATION

BOOK 1 - 87056690

Chapter 1 - General Information

CONTENTS

Section	Description	Page
00 000	Introduction	2
	Safety	3
	Technical Information	4
	Safety Precautions	5
	Safety Decals – D35, D40, D45	8
	Instruction Decals – D35, D40, D45	9
	Safety Decals – DX35, DX40, DX45	12
	Instruction Decals – DX35, DX40, DX45	13
	International Symbols – DX35, DX40, DX45	17
	Specifications – D35, D40, D45	18
	General Dimensions – D35, D40, D45	25
	Specifications – DX35, DX40, DX45	31
	General Dimensions – DX35, DX40, DX45	37
	Minimum Hardware Tightening Torques	41
	Special Tools	43
	Recommended Lubricants	44
	Adjustments	45
	Tire Inflation Pressure – Adjustments	45
00 100	Pre-Season and Pre-Delivery Checklist	46

MidWestTech | Case D35, DX35, D40, DX40, D45, DX45 Tractor Service Manual | Publicat... Order the manual at mid-west-tech.com >

SECTION 10 - ENGINE

BOOK 1 - 87056690

Chapter 1 - Engine

CONTENTS

Section	Description	Page
	Specifications	6
	Metric Bolt Torque Specifications	15
	Special Tools	16
	Compression Test and Tools	17
	Description of Operation	18
	Troubleshooting	19
	Cylinder Head and Valve Train Components	23
	Cylinder Block Assembly	23
	Separating the Tractor at the Clutch Housing/Engine – 12 x 12 Transmission	25
	Removal	25
	Separating the Tractor at the HST Housing/Engine – HST Transmission	29
	Removal	29
	Separating the Tractor at the Engine Frame	35
	Installation	38
	Attaching the 12 x 12 Transmission to the Engine	42
	Attaching the HST to the Engine	46
	Overhaul	54
	Engine	54
	Fuel Injector and Glow Plug	54
	Removal	54
	Oil Pressure Switch	54
	Temperature Sending Switch and Alternator	54
	Removal	54
	Fan, Water Pump and External Oil Tube	55
	Removal	55
	Air Inlet Manifold	55
	Removal	55
	Rocker Arm Shaft and Support Bracket	56
	Removal	56
10 101	Cylinder Head	56
	Removal	56

MidWestTech | Case D35, DX35, D40, DX40, D45, DX45 Tractor Service Manual | Publicat... Order the manual at mid-west-tech.com >

TECHNICAL INFORMATION

HARDWARE

GENERAL

The D35, DX35, D40, DX40, D45 and DX45 tractors have been built using metric hardware.

NOTE: *Be sure to use the hardware specified when using tapped holes, as trying to install a metric bolt in an inch thread, or an inch bolt in a metric thread, will damage the thread.*

Certain hardware must be tightened to specific torque specifications. If specific torque specifications are not noted, tighten the hardware to the standard torque chart specification listed in this manual.

PLATING

Hardware used on Case IH tractors is plated with zinc chromate (gold color). Gold colored hardware has different torquing requirements from unplated or zinc plated (silver color) hardware because of the difference in the coefficient of friction of the plating material. The torque charts in this manual list the correct specifications for gold, silver, and unplated bolts.

NUT TIGHTENING

Whenever possible, the nut should be tightened, not the head of the bolt. When tightening using the bolt head, the clamp load can be lost because some of the torque applied twists the bolt instead of tensioning (stretching) it. The tension on the bolt is what holds the joint together.

Approximately 90% of the torque applied during assembly goes to overcoming friction between the parts. The other 10% is used to tension (stretch) the bolt. After assembly, the frictional forces disappear, which is the basis for the saying "If it does not fail during assembly, it will not fail in service." The bolt may later fail due to other factors, but not from being over tightened.

LOCKNUTS

Most locknuts are coated with a special lubricant that is dry to the touch. Anytime a locknut is used, a lower than normal torque is required. Refer to the torque charts in this manual for specific values.

JAM NUTS

When using a jam nut to lock a regular nut, the jam nut should be installed first and tightened to one half the recommended torque, then held in place while installing a regular nut to the recommended torque.

THREAD LUBRICATION

The addition of antiseize compound, Molykote, oil, graphite, or any other lubricant to a bolt decreases the friction between it and a nut. This makes it necessary to reduce the recommended torque to prevent over tensioning of the bolt. When using the torque charts in this manual, decrease the value by 20% whenever a lubricant is used.

MidWestTech | Case D35, DX35, D40, DX40, D45, DX45 Tractor Service Manual | Publicat... Order the manual at mid-west-tech.com >

RADIO CIRCUIT TROUBLESHOOTING

CONDITION	POSSIBLE CAUSE	REMEDY
Radio will not play	Ignition switch not in the "ON" position	Place ignition switch in the "ON" position
	Blown #1, 7.5-amp fuse	Replace 7.5-amp fuse
	Faulty cab power relay	Test relay, replace if necessary
	Blown #23, 10-amp fuse	Replace 10-amp fuse
	Radio Harness connector not making contact	Check connector for proper contact.
	Faulty radio	Replace radio
Memory on radio will not function	Blown #6, 15-amp fuse	Replace 15-amp fuse
	Blown #22, 2-amp fuse	Replace 2-amp fuse
	Faulty radio	Replace radio

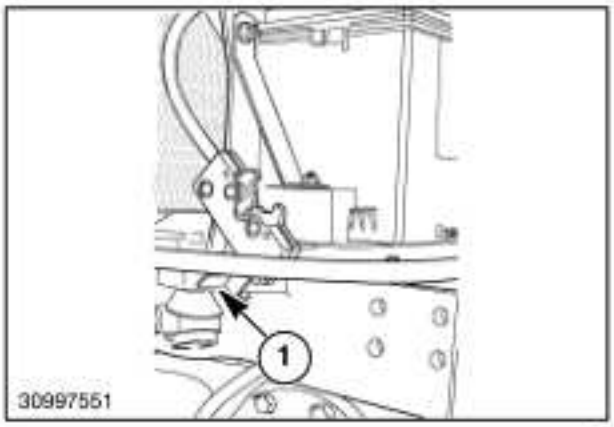
MidWestTech | Case D35, DX35, D40, DX40, D45, DX45 Tractor Service Manual | Publicat... Order the manual at mid-west-tech.com >

Op. 90 105

HOOD

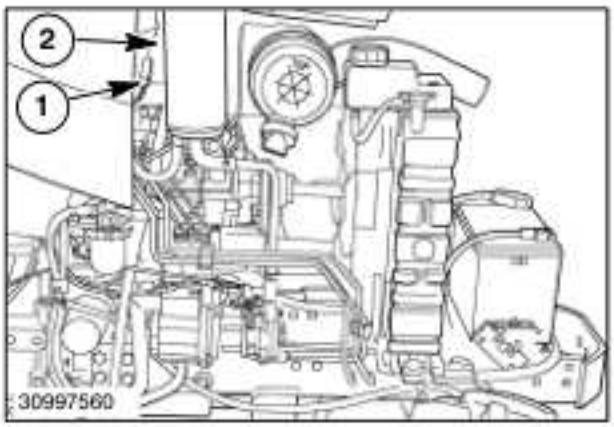
Removal

1. Release the hood latch, 1, and open the hood.



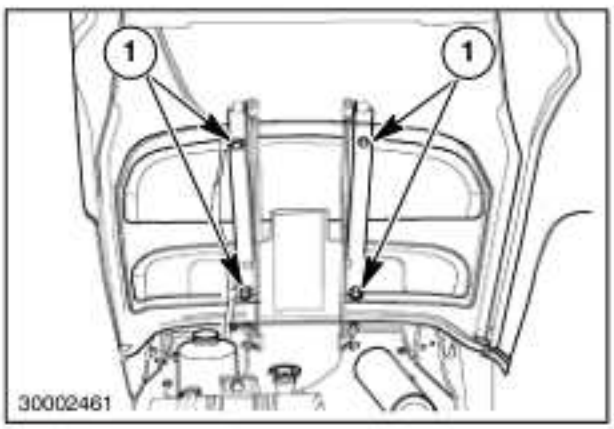
1

2. Disconnect the headlight wire harness connector, 1, from the headlight wire, 2.



2

3. Loosen and remove the four hood mounting bolts, 1.
4. Remove the hood from the tractor.



3

MidWestTech | Case D35, DX35, D40, DX40, D45, DX45 Tractor Service Manual | Publicat... Order the manual at mid-west-tech.com >