NEW HOLLAND

TC30 Tractor



REPAIR MANUAL

PIN #HK30001 to PIN #HK34732

NEW HOLLAND AGRICULTURE

SERVICE

87059165 3/05

MidWestTech | New Holland TC30 Tractor Service Manual | Publication 8736195?

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

TC30 REPAIR MANUAL COMPLETE CONTENTS

PIN #HK30001 TO PIN #HK34732 AND PIN #HK34733 AND ABOVE

SECTION 00 - GENERAL INFORMATION 2
SECTION 10 - ENGINE 3
SECTION 18 - CLUTCH 9
SECTION 21 - GEAR TRANSMISSION 11
SECTION 25 - FWD FRONT AXLE 13
SECTION 27 - DIFFERENTIAL, REAR AXLE 15
SECTION 29 - HYDROSTATIC TRANSMISSION 16
SECTION 31 - POWER TAKE-OFF SYSTEMS 21
SECTION 33 - BRAKES 23
SECTION 35 - HYDRAULIC SYSTEM 25
SECTION 41 - STEERING 27
SECTION 44 - WHEELS, TIRES AND 2WD AXLE 29
SECTION 55 - ELECTRICAL SYSTEM 31
SECTION 90 - PLATFORM 43

The following pages are the collation of the contents pages from each section and chapter of the TC30 Repair manual. Complete Repair part # 87361957

The sections used through out all New Holland 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.

Sections 00, 10, 18, 21, 25, 27, 29, 31, 33, 35, 41, 44 and 90 are used with all tractors PIN #HK30001 and above.

Section 55 Electrical System – Chapters 1, 2, 3, and 4 are used with PIN #HK30001 to PIN #HK34732.
Section 55 Electrical System – Chapters 5, 6, 7 and 8 are used with PIN #HK34733 and above.

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

87361959 7/05

MidWestTech | New Holland TC30 Tractor Service Manual | Publication 87361957 Order the manual at mid-west-tech.com >

SECTION 00 - GENERAL INFORMATION

BOOK 1 - 87059163

Chapter 1 - General Information

CONTENTS

Section	Description	Page
	Introduction	2
	Precautionary Statements	3
	Safety	4
	Safety Decals	7
	Instruction Decals	9
	International Symbols	13
	Specifications	14
	General Dimensions	20
	Minimum Hardware Tightening Torques	23
	Metric Bolt Torque Specifications	24
	Lubricants	25
	Adjustments	26

MidWestTech | New Holland TC30 Tractor Service Manual | Publication 87361957 Order the manual at mid-west-tech.com >

SECTION 10 - ENGINE

BOOK 1 - 87059163

Chapter 1 - Engine

CONTENTS

Section	Description	Page
	Specifications	5
	Metric Bolt Torque Specifications	12
	Engine Bolt Torque Specifications	13
	Engine Fuel System Bolt Torque Specifications	13
	Special Tools	14
	Compression Test and Tools	14
	Description of Operation – Engine	15
	Cylinder Head and Valve Train Components	16
	Cylinder Block Assembly	16
	Troubleshooting	18
	Overhaul – Engine	23
	Engine	23
	Preparation	23
	Fuel Injector and Glow Plug	24
	Removal	24
	Oil Pressure Switch	24
	Removal	24
	Temperature Sending Switch and Alternator	25
	Removal	25
	Fan, Water Pump, and External Oil Tube	25
	Removal	25
	Head Cover	25
	Removal	25
	Rocker Arm Shaft and Support Bracket	26
	Removal	26
	Cylinder Head	26
	Removal	26
	Valve Tappet	27
	Removal	27
	Fuel Shutoff Solenoid	27
	Removal	27
	Timing Gear Cover	27
	Removal	27
	Timing Gears and Camshaft	29
	Removal	29
	Oil Sump	30
	Removal	30
	Oil Suction Pipe and Strainer	30
	Removal	30

MidWestTech | New Holland TC30 Tractor Service Manual | Publication 87361957 Order the manual at mid-west-tech.com >

VALVE SPRINGS

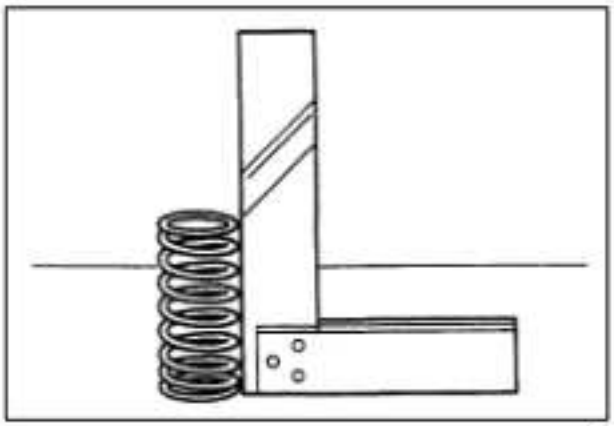
Inspection and Replacement

1. Place the valve springs on a flat surface. Measure the free length of the spring and squareness. Replace springs that do not meet the following specifications (all models):

Max. Out of Square	Min. Free-Length
2.0 mm (0.079″)	33.5 mm (1.319″)

2. Place the springs in a suitable spring load tester and measure the spring load rating. Replace springs that do not meet the following specifications (all models):

Standard	Maximum
8.1 kg (17.86 lbs.) at 30.4 mm (1.197″)	7 kg (15.43 lbs.) at 30.4 mm (1.197″)

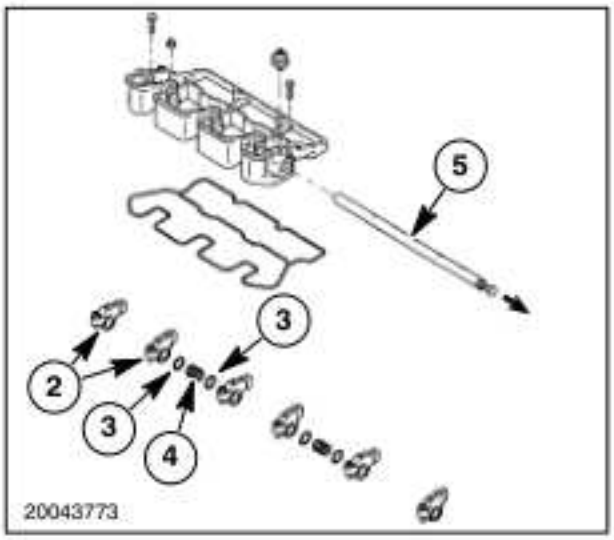


45

ROCKER ARMS

Inspection and Replacement

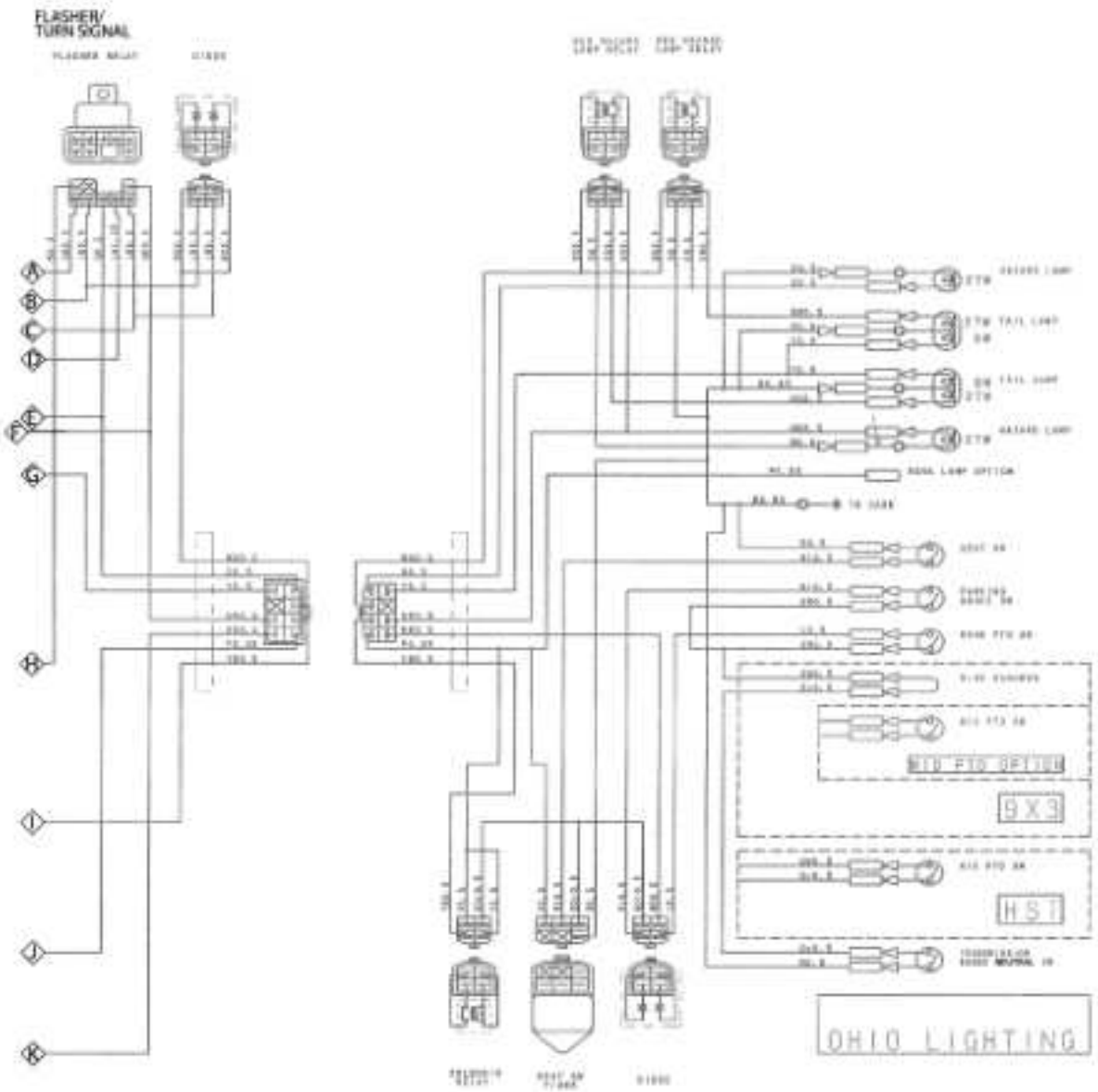
1. Thread an 8 mm bolt into the front end of the rocker shaft and slowly withdraw the rocker shaft while at the same time removing the rocker arms and springs.
2. Inspect the rocker arms and shaft for wear or damage. Check the adjusting screws for damaged threads or excessive wear.
3. Check the valve stem contact area for pitting or excessive wear. Slight wear patterns may be removed using a fine grit oil stone.



46

1. Rocker Arm
2. Shims
3. Spring
4. Rocker Arm Shaft

MidWestTech | New Holland TC30 Tractor Service Manual | Publication 87361957 Order the manual at mid-west-tech.com >



TC30
COMPLETE SCHEMATIC

PIN # HK30001 to HK34732

50036224

2

MidWestTech | New Holland TC30 Tractor Service Manual | Publication 87361957 Order the manual at mid-west-tech.com >

TROUBLESHOOTING - RIGHT TURN SIGNAL CIRCUIT		
PROBLEM	**POSSIBLE CAUSE**	**CORRECTION**
Inoperative right turn signal flasher light	Blown 10-amp fuse	Check fuse and replace as necessary
	Blown 15-amp fuse	Check fuse and replace as necessary
	Malfunctioning Hazard Flasher/Turn Signal Switch	Test switch and replace as necessary
	Blown bulb	Check for any blown bulbs and replace as necessary
	Improper Ground Circuit	Check Right turn signal circuit connections and circuit grounds and repair as necessary
	Malfunctioning Hazard Flasher/Turn Signal Relay	Check relay and replace as necessary
Inoperative right taillight	Defective right red hazard relay	Check relay and replace as necessary
	Improper ground circuit	Check circuit grounds and replace as necessary

MidWestTech | New Holland TC30 Tractor Service Manual | Publication 87361957 Order the manual at mid-west-tech.com >