

NEW HOLLAND

REPAIR MANUAL

TC35A
TC35DA
TC40A
TC40DA
TC45A
TC45DA
Tractors

NEW HOLLAND AGRICULTURE

SERVICE

87618714

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The following pages are the collation of the contents pages from each section and chapter of the TC35A – TC45DA Repair manual. Complete Repair part # 87618714.

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.

The sections listed above are the sections utilized for the TC35A – TC45DA Tractors.

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87618716 12/06
Replaces 87056434

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SECTION 00 - GENERAL INFORMATION

BOOK 1 - 87054260

Chapter 1 - General Information

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SECTION 10 - ENGINE

BOOK 1 - 87054260

Chapter 1 - Engine

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TACHOMETER CIRCUIT

1. Current starts at the battery, and flows through the positive (+) battery cable to the engine starter motor.
2. From the starter motor, current flows through the 40-amp fuse to a wire splice. The wire splice sends current into two directions:
   - To the "B" terminal of the ignition switch
3. When the ignition switch is placed in the "ACC/RUN" position current is transferred across the following ignition switch terminals:
   - "B" to "C" terminals

Terminal "C" of ignition switch

1. Current flows from the "C" terminal of the ignition switch to the fuse panel bussbar, from the bussbar current travels through the #5 7.5-amp fuse.
2. The #5 7.5-amp fuse supplies current to terminal #2 of the instrument panel.

Alternator/Instrument Panel

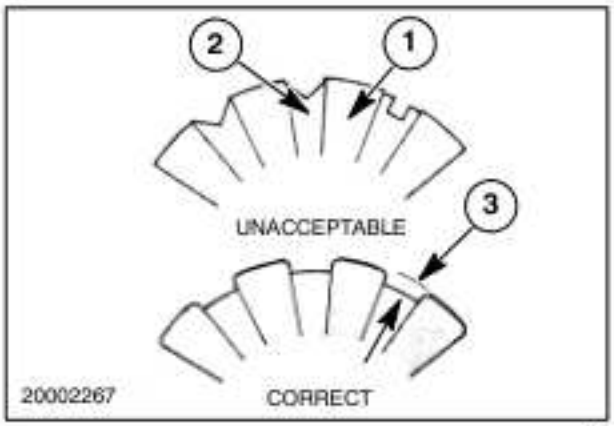
1. Two supplied currents allow the tachometer to function.
2. First current is supplied to terminal #2 of the instrument panel by the #5 7.5-amp fuse
3. Terminal "T" of the alternator (HM61 coded wire) provides a signal current to terminal #20 of the instrument panel. This current controls the tachometer's RPM reading
4. The ground source is provide by terminal #24 of the instrument panel. This is a constant ground source provided by the tractor main ground, located at the engine starter mounting bolt.

TACHOMETER CIRCUIT TROUBLESHOOTING

CONDITION	POSSIBLE CAUSE	REMEDY
Tachometer does not operate when tractor engine is running	Blown #5, 7.5-amp instrument panel fuse	Inspect and replace fuse as necessary
	Defective tachometer	Test tachometer and replace instrument panel as necessary
	Tachometer pick-up wire damaged, corroded, disconnected or short-circuited	Inspect tachometer pick-up, repair or replace as necessary
	Faulty tachometer gauge ground	Inspect and repair ground wire as necessary
	Defective alternator component	Test alternator and components, repair or replace as necessary
Inaccurate tachometer reading	Malfunctioning tachometer	Test tachometer and replace instrument panel as necessary
	Loose alternator belt	Adjust belt tension

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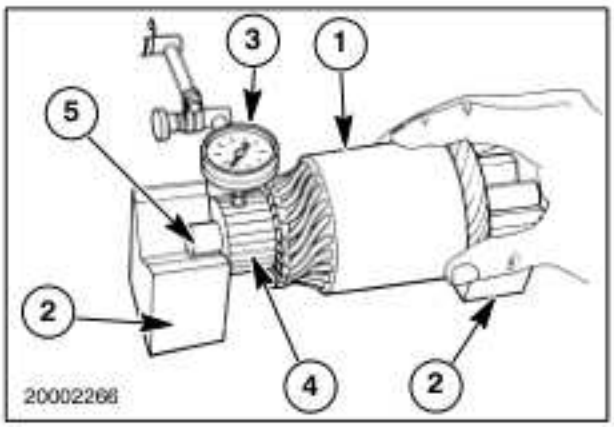
10. Inspect the mica insulating valleys, 2, between the commutator contacts, 1, for uneven wear. Use a suitable measuring device to check the distance, 3, between the top of the contact to the bottom of the insulating valley. The distance should be 0.5 – 0.8 mm (0.020 – 0.031 in.). If the distance is not within these specifications or there is uneven wear, the insulating valleys may be undercut with a suitable file.



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NOTE: *If not previously removed, the armature bearings will need to be removed for this test.*

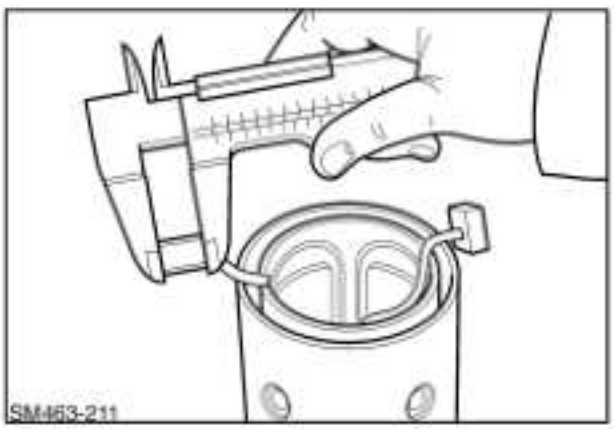
11. Place the armature, 1, in a set of precision V-blocks, 2, and use a dial indicator, 3, to measure commutator, 4, runout and shaft, 5, runout. Commutator runout should not be more than 0.2 mm (0.008 in.). Shaft runout should not be more than 0.05 mm (0.002 in.).



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NOTE: *When measuring the brush length, remove the brush from the brush support and measure the middle portion of the brush.*

12. Use a suitable measuring device to measure the length of the four armature brushes. Compare the measurement of each brush with brush length specifications. If the brush is not within specifications or is damaged in any way, replace the brushes.



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FRONT AND REAR WIPERS TROUBLESHOOTING

CONDITION	POSSIBLE CAUSE	REMEDY
Front wiper will not work	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 #26, 15-amp fuse	Replace 15-amp fuse
	Faulty wiper switch	Check switch, replace if necessary
	Faulty wiper motor	Check wiper motor , replace if necessary
Rear wiper will not work	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 #26, 15-amp fuse	Replace 15-amp fuse
	Faulty wiper switch	Check switch, replace motor assembly if necessary
	Faulty wiper motor	Check wiper motor, replace assembly if necessary.

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