

# SERVICE MANUAL

## TT3840 / TT3840F / TT4030 / TT3880F Tractor

Part number 47921938

English  
February 2017



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Product: New Holland TT3840/TT3840F/TT4030/TT3880F Tractor Service Repair Manual  
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## SERVICE MANUAL

**TT3840 Without cab, 8x2, TIER 2, Upgrade, Model Year 2016, TT3840F Without cab, 8x2, Model Year 2016, TT3880F Without cab, 8x2, Model Year 2016, TT3880F Without cab, 12x3, Model Year 2016, TT4030 Without cab, 8x2, 2WD, Model Year 2016, TT4030 Without cab, 8x2, 4WD, Model Year 2016**

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47921938 07/02/2017

EN

## Link Product / Engine

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<b>Product</b>	<b>Market Product</b>	<b>Engine</b>
TT3840 Sem cabine, 8x2, TIER 2, atualização, modelo ano 2016	Latin America	8035.05.716
TT3840F Sem cabine, 8x2, modelo ano 2016	Latin America	8035.05.716
TT3880F Sem cabine, 8x2, modelo ano 2016	Latin America	8045.05.716
TT3880F Sem cabine, 12x3, modelo ano 2016	Latin America	8045.05.716
TT4030 Sem cabine, 8x2, 2WD, modelo ano 2016	Latin America	8045.05.716
TT4030 Sem cabine, 8x2, 4WD, modelo ano 2016	Latin America	8045.05.716

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# INTRODUCTION

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## INTRODUCTION

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(\*) See content for specific models

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## Advice

TT3840F	LA
TT3840	LA
TT3880F	LA
TT4030	LA

**CALIFORNIA  
PROPOSITION 65 WARNING**

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

Battery post, terminals and related accessories contain lead and lead compounds.

**Wash hands after handling**

BT09A213 1

## International symbols

TT3840F	LA
TT3840	LA
TT3880F	LA
TT4030	LA

As a guide to the operation of the machine, various universal symbols have been utilized on the instruments, controls, switches, and fuse box. The symbols are shown below with an indication of their meaning.

 Thermostat Start-up help	 Radio	 PTO	 Control Control
 Alternator charging	 KAM Keep alive memory	 N Transmission in neutral	 Check Control
 Fuel level	 Turn signals	 Creepers gears	 Accessory socket
 Auto Fuel shut-off	 Turn signals -one trailer	 Slow or low setting	 Implement socket
 Engine speed(rev/ min x 100)	 Turn signals -two trailers	 Fast or high setting	 %age slip
 Hours recorded	 Windshield front wash/wipe	 Ground speed	 Hitch raise (rear)
 Engine oil pressure	 Windshield front wash/wipe	 Differential lock	 Hitch lower (rear)
 Engine coolant temperature	 Temperature control erature control	 rear axle temperature rear axle	 Hitch height limit (rear)
 Coolant level	 Heater fan	 Transmission oil pressure	 Hitch height limit (front)
 Tractor lights	 Air COND.	 FWD engaged	 Hitch dis- abled
 Head Light main beam	 Air filter plugged	 FWD dis- engaged	 Filter transmission system
 Head Light dipped beam	 Parking sw	 Warning!	 Remote valve extend
 Work lamps	 Brake fluid level	 Hazard warning lights	 Remote oscillating
 valve retraction lamps	 Trailer sw	 Variable control	 Remote valve float
 Klaxon	 Roof beacon	 Pressurized! Open carefully	 Malfunction! See Operator's manual
	 Warning! Corrosive substance		 Malfunction! (alter- native symbol)

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## Safety rules

TT3840F	LA
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TT4030	LA

### Personal safety



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

Throughout this manual and on machine safety signs, you will find the signal words DANGER, WARNING, and CAUTION followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

Read and understand all the safety messages in this manual before you operate or service the machine.

 DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury. The color associated with DANGER is RED.

 WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury. The color associated with WARNING is ORANGE.

 CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury. The color associated with CAUTION is YELLOW.

## FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

### Machine safety

**NOTICE:** Notice indicates a situation that, if not avoided, could result in machine damage or property damage. The color associated with Notice is BLUE.

Throughout this manual you will find the signal word Notice followed by special instructions to prevent machine damage or property damage. The word Notice is used to address practices not related to personal safety.

### Information

**NOTE:** Note indicates additional information that clarifies steps, procedures, or other information in this manual.

Throughout this manual you will find the word Note followed by additional information about a step, procedure, or other information in the manual. The word Note is not intended to address personal safety or property damage.

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## Basic instructions Hardware

TT3840F	LA
TT3840	LA
TT3880F	LA
TT4030	LA

### General

The TT tractor has 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 New Holland balers 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.

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## General specification - Biodiesel Fuels

TT3840F	LA
TT3840	LA
TT3880F	LA
TT4030	LA

Fatty Acid Methyl Ester Biodiesel (Biodiesel Fuel) consists of a family of fuels derived from vegetable oils treated with methyl esters.

**NOTICE:** Biodiesel Fuel blends are approved for your engine only if they comply with **EN14214** Specification Standards or **ASTM D6751**.

**NOTICE:** It is imperative that you check which blend is approved for your engine with your NEW HOLLAND dealer. Be aware that the use of Biodiesel Fuel that does not comply with the Standards mentioned above could lead to severe damage to the engine and fuel system of your machine. The use of fuels that are not approved may void NEW HOLLAND Warranty coverage.

### Biodiesel Fuel Usage Conditions

**NOTICE:** The Biodiesel Fuel must meet the fuel Specification mentioned above.

Biodiesel Fuel must be purchased from a trusted supplier that understands the product and maintains good fuel quality. Biodiesel Fuel must be pre-blended by the supplier. Mixing Biodiesel Fuels on-site can result incorrect mixture that can lead to problems with both engine and fuel system.

Engine performance is affected by the use of Biodiesel Fuel. There may be up to **12%** reduction in power or torque depending on the blend used.

**NOTICE:** DO NOT modify the engine and/or injection pump settings to recover the reduced performance.

The reduced power must be accepted if using any Biodiesel Fuel blend.

Some modification may be required to allow your engine to run Biodiesel Fuel. Consult you dealer for complete information on these modifications.

Biodiesel Fuel has a higher cloud point than Diesel Fuel.

**NOTICE:** The use of high Biodiesel Fuel blends are not recommended in cold weather conditions.

With Biodiesel Fuels, it may be necessary to change the engine oil, engine oil filter and fuel filter elements more frequently than with Diesel Fuels. Biodiesel Fuel can remove rust and particles from the inside of on-site fuel storage tanks that would normally adhere to the sides of the tank. Like particle deposits that commonly occur with Diesel Fuel, these particles can become trapped by the machine fuel filters, causing blockage and shortening filter life. In cold weather, this is more likely to happen. Consult your NEW HOLLAND dealer for information on cold weather operation and proper maintenance intervals when using any Biodiesel Fuel blend.

When handling Biodiesel Fuel, care must be taken not to allow water into the fuel supply. Biodiesel Fuel will actually attract moisture from the atmosphere.

Fuel tanks must be kept as full as possible to limit the amount of air and water vapors in them. It may be necessary to drain the fuel filter water tap more frequently.

Potential oxidation and stability could be a problem with the fuel stored in the machine.

**NOTICE:** Machines must not be stored for more than three months with Biodiesel Fuel blends in the fuel system.

If long storage periods are necessary, the engine must run on Diesel Fuel for 20 hours to flush the Biodiesel Fuel out of the engine fuel system prior to storage.

**NOTICE:** Biodiesel Fuel must not be stored in on-site storage tanks for more than three months.

Any spillage of Biodiesel Fuel must be cleaned up immediately before it can cause damage to the environment and the paint finish of the machine.

Before using Biodiesel Fuel blends you should consult with your dealer to receive full information about the approved blend for your machine and any detailed conditions of its usage.

## INTRODUCTION

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**NOTICE:** *Be aware that not fulfilling the requirements and conditions of Biodiesel Fuel usage will void your machine's NEW HOLLAND Warranty coverage.*

## Consumables Loctite® Product Chart

TT3840F	LA
TT3840	LA
TT3880F	LA
TT4030	LA

Bonding Adhesives					
Product	Color	Strength	Fixture/Full Cure (Steel/Steel) Time	Recommended Primer or Activator	Description
312	Clear	<b>9.8 – 17.2 MPa</b> (1421 – 2495 psi)	2 min/24 hrs	736	Typical applications include bonding dissimilar materials such as metals, glass or ceramics and where fast fixturing is required between close fitting parts.
324	Light amber	<b>34 – 614 MPa</b> (4932 – 89061 psi)	30 min/24 hrs	7075	Is used to bond flat parts together. Especially suitable for joining dissimilar materials, e.g. ferrite to plated materials in electric motors, loudspeakers, etc. This product is specifically formulated for toughness and impact strength.
326	Yellow to light amber	<b>34 – 300 MPa</b> (4932 – 43515 psi)	3 min/6 hrs	7649 on one surface	Typical applications include bonding ferrites to plated materials in electric motors, loudspeaker hardware and jewelry where fast fixturing is required.
380	Black	<b>26 MPa</b> (3770 psi)	2 min/24 hrs	none	Is a rubber toughened adhesive with increased flexibility and peel strength along with enhanced resistance to shock.
409	Clear to slightly cloudy	<b>18 – 26 MPa</b> (2611 – 3771 psi)	2 min/24 hrs	none	Is a general purpose cyanoacrylate adhesive gel. The gel consistency prevents adhesive flow even on vertical surfaces.
426	Black	<b>4.8 – 20.7 MPa</b> (696 – 3003 psi)	10 sec/40 sec.	none	Is an adhesive gel toughened with elastomers for impact and peel strength along with improved resistance to heat and humidity.
454	Clear to slightly cloudy	<b>19 – 28 MPa</b> (2756 – 4061 psi)	1 min/72 hrs	none	Is particularly suited for bonding porous or absorbent materials such as wood, paper, leather and fabric.
455	Clear to light yellow	<b>9.7 MPa</b> (1407 psi)	30 sec/24 hrs	none	Is a general purpose cyanoacrylate adhesive gel with low odor and low blooming properties and is particularly suitable for applications where vapor control is difficult.
480	Black	<b>22 – 30 MPa</b> (3191 – 4352 psi)	2 min/24 hrs	none	Is a rubber toughened adhesive with increased flexibility and peel strength along with enhanced resistance to shock.
495	Clear to straw colored	<b>12 – 26 MPa</b> (1741 – 3771 psi)	10 sec/30 sec.	none	Is a general purpose cyanoacrylate instant adhesive.
E60HP	Pale yellow	<b>29.8 MPa</b> (4322 psi)	3 hrs/24 hrs	none	Is a toughened, medium viscosity, industrial grade epoxy adhesive with extended work life. Once mixed, the two-component epoxy cures at room temperature to form a tough, off-white, bond line which provides high peel resistance and high shear strengths. The fully cured epoxy is resistant to a wide range of chemicals and solvents, and acts as an excellent electrical insulator.

INTRODUCTION

Surface Preparation			
Product	Color	Active (Steel/Steel) Time	Description
7380	Yellow to light amber	6 hours	Is designed to initiate the cure of Loctite toughened acrylic adhesives.
7471	Yellow to light amber	30 to 70 seconds	Is used where increased cure speed of LOCTITE® anaerobic products is required. It is especially recommended for applications with passive metals or inert surfaces and with large bond gaps. Is particularly recommended when prevailing temperature is low < <b>15 °C (60 °F)</b> .
7649	Green	30 to 70 seconds	Is used where increased cure speed of LOCTITE® anaerobic products is required. It is especially recommended for applications with passive metals or inert surfaces and with large bond gaps. Is particularly recommended when prevailing temperature is low < <b>15 °C (60 °F)</b> .

Retain, Cylindrical Assemblies					
Product	Color	Strength	Fixture/Full Cure (Steel/Steel) Time	Recommended Primer or Activator	Description
603	Green	<b>13.5 – 22.5 MPa (1958 – 3264 psi)</b>	7 min/6 hrs	7471 or 7469	Is designed for the bonding of cylindrical fitting parts, particularly where consistently clean surfaces cannot be assured. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. Typical applications include retaining roller bearings or oil impregnated bushings into housings.
609	Green	<b>10.3 – 15.8 MPa (1494 – 2292 psi)</b>	25 min/6 hrs	7471 or 7469	Is designed for the bonding of cylindrical fitting parts. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. Typical applications include rotor to shafts in fractional and subfractional horsepower motors. Locks bushings and sleeves in housings on shafts. Augments press fits.
620	Green	<b>17.2 – 24.1 MPa (2495 – 3496 psi)</b>	1 hr 10 min/18 hrs	7471 or 7469	Is designed for the bonding of cylindrical fitting parts. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. Typical applications include locating pins in radiator assemblies, sleeves into pump housings and bearings in auto transmissions. Particularly suitable for applications where temperature resistance up to <b>200 °C (395 °F)</b> is required.
635	Green opaque	<b>13.8 – 31.0 MPa (2002 – 4497 psi)</b>	30 min/72 hrs	7471 or 7469	Is designed for the bonding of cylindrical fitting parts. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. Typical applications include rotor to shafts in fractional and subfractional horsepower motors. Locks bushings and sleeves in housings on shafts. Augments press fits.

INTRODUCTION

<b>Retain, Cylindrical Assemblies</b>					
<b>Product</b>	<b>Color</b>	<b>Strength</b>	<b>Fixture/Full Cure (Steel/Steel) Time</b>	<b>Recommended Primer or Activator</b>	<b>Description</b>
638	Green	<b>13.5 – 25.0 MPa (1958 – 3626 psi)</b>	4 min/6 hrs	7471 or 7469	Is designed for the bonding of cylindrical fitting parts, particularly where bond gaps can approach 0.25 mm (0.01 in.) and where maximum strength at room temperature is required. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. Typical applications include locking bushings and sleeves into housings and on shafts.
648	Green	<b>13.5 – 25.0 MPa (1958 – 3626 psi)</b>	4 min/1.5 hrs	7471 or 7469	Is designed for the bonding of cylindrical fitting parts. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. Typical applications include holding gears and sprockets onto gearbox shafts and rotors on electric motor shafts.
660	Metallic grey	<b>17.2 MPa (2495 psi)</b>	15 min/1.5 hrs	7471 or 7469	Is designed for the bonding of cylindrical fitting parts, particularly where bond gaps can approach 0.50 mm (0.02 in). The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. This product possesses excellent gap cure characteristics. Typical applications include restoring correct fits on worn shafts, spun bearings, and damaged keyways.
680	Green	<b>19.3 – 24.1 MPa (2799 – 3496 psi)</b>	20 min/1.1 hrs	7471 or 7469	Is designed for the bonding of cylindrical fitting parts, particularly where low viscosity is required. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration.

<b>RTV Sealants</b>					
<b>Product</b>	<b>Color</b>	<b>Strength</b>	<b>Fixture/Full Cure (Steel/Steel) Time</b>	<b>Description</b>	
5699	Grey	<b>1.3 – 2.1 MPa (189 – 305 psi)</b>	30 min/14 days	Is designed primarily for flange sealing with excellent oil resistance on rigid flange sealing for example on transmissions and cast metal housings.	
587	Blue	NA	2 hrs/24 hrs	Forms tough, flexible gaskets directly on the flange. Sensor-safe, low odor, non-corrosive. Excellent oil resistance and joint movement values. Eight times more flexible than cork/composite gaskets; three times more oil resistant than conventional silicones. Temperature range <b>-59 – 260 °C (-75 – 500 °F)</b> intermittent; resists auto and shop fluids.	
593	Black	<b>1.5 MPa (218 psi)</b>	5 min/24 hrs	Is designed for superior bonding and sealing properties to most surfaces (not recommended for concrete). This product resists aging, weathering and thermal cycling without hardening, shrinking or cracking. It is formulated to withstand extreme temperature cycling, UV light and ozone. The thixotropic nature reduces the migration of liquid product after application to the substrate.	

INTRODUCTION

<b>RTV Sealants</b>				
<b>Product</b>	<b>Color</b>	<b>Strength</b>	<b>Fixture/Full Cure (Steel/Steel) Time</b>	<b>Description</b>
595	Clear	<b>1.5 MPa (218 psi)</b>	5 min/24 hrs	Is designed for superior bonding and sealing properties to most surfaces (not recommended for concrete). This product resists aging, weathering and thermal cycling without hardening, shrinking or cracking. It is formulated to withstand extreme temperature cycling, UV light and ozone. The thixotropic nature reduces the migration of liquid product after application to the substrate.
596	Red	NA	5 min/24 hrs	Is specifically formulated for gasketing and sealing where high temperatures <b>315 °C (600 °F)</b> are experienced such as exhaust manifolds - crossovers, high temperature ovens and furnaces. Applications where sealing and bonding are required under frequent exposure to temperatures above <b>235 – 315 °C (450 – 600 °F)</b> .

<b>Gasket Sealants</b>					
<b>Product</b>	<b>Color</b>	<b>Strength</b>	<b>Fixture/Full Cure (Steel/Steel) Time</b>	<b>Recommended Primer or Activator</b>	<b>Description</b>
509	Blue to greenish paste	<b>8 – 9 MPa (1160 – 1305 psi)</b>	1 hr/72 hrs	7471 or 7469	Provides resistance to low pressures immediately after assembly of flanges. It seals close fitting joints between rigid metal faces and flanges. Typically used as a form-in-place gasket on rigid flanged connections, e.g. gearbox and engine casings, etc. The thixotropic nature reduces the migration of liquid product after application to the substrate.
515	Opaque, dark purple	<b>6 – 14 MPa (870 – 2031 psi)</b>	30 min/18 hrs	7471 or 7469	It seals close fitting joints between rigid metal faces and flanges and will flex with minor flange movements. Provides resistance to low pressures immediately after assembly of flanges. Typically used as a form-in-place gasket for pumps, thermostats, compressors, transmission housings and axle covers.
518	Red	<b>7.5 – 8.5 MPa (1088 – 1233 psi)</b>	30 min/8 hrs	7471 or 7469	Typical applications include sealing close fitting joints between rigid metal faces and flanges. Provides resistance to low pressures immediately after assembly of flanges. Typically used as a form-in-place gasket on rigid flanged connections, e.g. gearbox and engine casings, etc.
542	Brown	<b>9 – 25 Nm (80 – 222 lb in)</b>	20 min/8 hrs	7471 or 7469	Is designed for the locking and sealing of metal pipes and fittings. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration.
545	Purple	<b>2 Nm (20 lb in)</b>	30 min/24 hrs	7471 or 7469	Is designed for the locking and sealing of metal pipes and fittings. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. This product is specially formulated to offer lubricity for easy assembly.
567	Off white	<b>0.3 – 1.7 Nm (3 – 15 lb in)</b>	4 hrs/72 hrs	7471 or 7469	Is designed for the locking and sealing of metal tapered threads and fittings.
569	Brown	<b>1.1 – 2.8 Nm (10 – 25 lb in)</b>	2 hr/24 hrs	7471 or 7469	Is designed for the locking and sealing of plastic and metal pipes and fittings.

INTRODUCTION

<b>Gasket Sealants</b>					
<b>Product</b>	<b>Color</b>	<b>Strength</b>	<b>Fixture/Full Cure (Steel/Steel) Time</b>	<b>Recommended Primer or Activator</b>	<b>Description</b>
592	White	<b>0.113 – 0.330 Nm (1 – 3 lb in)</b>	72 hrs	none	Is a medium strength anaerobic sealant with Teflon® for tapered pipe threads. The high lubricating properties of this compound prevent galling on pipe threads and fittings. It will provide immediate low pressure sealing and allow the readjustment of fittings shortly after assembly. After 72 hours the joint is sealed to pipe burst pressure.
598	Metallic black	<b>1.31 MPa (190 psi)</b>	25 min/72 hrs	none	This product resists aging, weathering and thermal cycling without hardening, shrinking or cracking. Typical applications include oil pans, transmission pans, valve covers, valves and guides, timing gear covers, and differential covers. This product is typically used in applications with an operating range of <b>-54 – 260 °C (-65 – 500 °F)</b> .

<b>Thread Locker and Sealing</b>					
<b>Product</b>	<b>Color</b>	<b>Strength</b>	<b>Fixture/Full Cure (Steel/Steel) Time</b>	<b>Recommended Primer or Activator</b>	<b>Description</b>
204	Pink	<b>12.4 – 24.9 Nm (110 – 220 lb in)</b>	10 min/72 hrs	none	Is a dry-to-the-touch, preapplied film for threaded fasteners. It remains inert on the fastener until assembly of the threads releases a quick curing resin. The resin fills all the voids in the threads and cures to securely lock and seal the assembly.
222	Purple	<b>4 – 14 Nm (35 – 124 lb in)</b>	20 min/3 hrs	7471 or 7469	Is designed for the locking and sealing of threaded fasteners which require easy disassembly with standard hand tools.
242	Blue	<b>5.6 – 17 Nm (50 – 150 lb in)</b>	3 min/6 hrs	7471 or 7469	Is designed for the locking and sealing of threaded fasteners which require normal disassembly with standard hand tools.
243	Blue	<b>7 – 24 Nm (62 – 212 lb in)</b>	10 min/1 hr	7471 or 7469	Is designed for the locking and sealing of threaded fasteners which require normal disassembly with standard hand tools.
246	Blue	<b>2 – 5.7 Nm (18 – 50 lb in)</b>	10 min/6 hrs	7471 or 7469	Is designed for the locking and sealing of threaded fasteners which require normal disassembly with standard hand tools. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. Particularly suitable for heavy duty applications such as bolts used in transmissions, construction equipment or railroad assemblies where resistance to heavy shock, vibration and stress level is required along with exposure to elevated temperatures.
262	Red	<b>22 – 40 Nm (195 – 354 lb in)</b>	15min/7 hrs	7471 or 7469	Is designed for the permanent locking and sealing of threaded fasteners.
271	Red	<b>16.9 – 34 Nm (150 – 300 lb in)</b>	10 min/24 hrs	7471 or 7469	Is designed for the permanent locking and sealing of threaded fasteners.
277	Red	<b>32 – 40 Nm (283 – 354 lb in)</b>	30 min/7 hrs	7471 or 7469	Is designed for the permanent locking and sealing of threaded fasteners.

INTRODUCTION

<b>Thread Locker and Sealing</b>					
<b>Product</b>	<b>Color</b>	<b>Strength</b>	<b>Fixture/Full Cure (Steel/Steel) Time</b>	<b>Recommended Primer or Activator</b>	<b>Description</b>
290	Green	<b>10 – 40 Nm (90 – 355 lb in)</b>	20 min/4 hrs	7471 or 7469	Is designed for the locking and sealing of threaded fasteners. Because of its low viscosity and capillary action, the product wicks between engaged threads and eliminates the need to disassemble prior to application.
425	Dark blue	<b>0.23 – 8.5 Nm (2 – 75 lb in)</b>	2 min/24 hrs	7113	Is designed as a fast curing, low strength adhesive for locking metal and plastics fasteners. The product is designed for pre- or post-application. LOCTITE® 425™ cures quickly on plated metal and plastics fasteners; fixturing is achieved in less than 2 minutes and full strength within 24 hours.



# **SERVICE MANUAL**

## **Engine**

**TT3840 Without cab, 8x2, TIER 2, Upgrade, Model Year 2016, TT3840F Without cab, 8x2, Model Year 2016, TT3880F Without cab, 8x2, Model Year 2016, TT3880F Without cab, 12x3, Model Year 2016, TT4030 Without cab, 8x2, 2WD, Model Year 2016, TT4030 Without cab, 8x2, 4WD, Model Year 2016**

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## **Engine - 10**

### **Engine and crankcase - 001**

**TT3840 Without cab, 8x2, TIER 2, Upgrade, Model Year 2016, TT3840F Without cab, 8x2, Model Year 2016, TT3880F Without cab, 8x2, Model Year 2016, TT3880F Without cab, 12x3, Model Year 2016, TT4030 Without cab, 8x2, 2WD, Model Year 2016, TT4030 Without cab, 8x2, 4WD, Model Year 2016**

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### Engine and crankcase - 001

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## Engine - General specification

TT3840F	LA
TT3840	LA
TT3880F	LA
TT4030	LA

	TT3840	TT3840F	TT3880F
Number of rolls	3		4
Loop	Diesel, 4 stroke		
Injection	Direct		
Piston diameter	104 mm		
Piston stroke	115 mm		
Injection Sequence	1-2-3		1-3-4-2
Engine speeds			
Idle speed	650 RPM +/- 25 RPM		
Maximum RPM without load	2750 – 2790 RPM		
Nominal speed	2500 RPM +/- 50 RPM		
Total cylinder capacity	2931 cm <sup>3</sup>		3908 cm <sup>3</sup>
Compression ratio	18:01 Aspirated 16.5:1 Turbo		
Maximum Power	40.45 kW (55 Hp)		56 kW (76.14 Hp)
Rotation for maximum power	2500 RPM		
Rotation for maximum torque	1500 RPM		1500 RPM
Number of main bearing housings	4		5
Crankcase	Cast iron		
Maximum working inclination, transverse, and longitudinal	35°		
Rev counter	Incorporated in control panel		
Acionamento	Originated from the distribution shaft gear		
Gauge calibrated for engine at	1800 RPM		
Sistema de distribuição			
Spread	With overhead valves controlled by cams, rods, and rocker arms through the distribution control shaft located on the base and controlled by the crankshaft through helical gears.		
Aspiration			
Start:	12° before TDC		
End:	31° after BDC		
Discharge			
Start:	50° before BDC		
End:	16°		
Play between the rocker arms and valves to control the valve opening and closing diagram	0.45 mm		
Roll diameter	104.000 mm		
Play between distribution gear teeth	0.160 mm		
Internal diameter of distribution gear bushes (installed and finished in the seat)	37.050 – 37.075 mm		
Diameter of transmission gear bushing seat	36.975 – 37.000 mm		
Play between bushing seat and relative bushes	0.050 – 0.100 mm		
Maximum acceptable play from wear	0.150 mm		
Interference between the bush and seat on transmission gear	0.063 – 0.140 mm		
External diameter of bushings on the control shaft:			
Front	54.875 – 54.930 mm		
Middle	54.375 – 54.430 mm		

	TT3840	TT3840F	TT3880F
Back	53.875 – 53.930 mm		
Interference between the bushes (control shaft) and the housings in the block	0.070 – 0.150 mm		
External diameter of seats on the control shaft:			
Front	50.970 – 51.000 mm		
Middle	50.470 – 50.500 mm		
Back	49.970 – 50.000 mm		
Internal diameter of the bushes on the control shaft (installed and finished in the block):			
Front	51.080 – 51.130 mm		
Middle	50.580 – 50.630 mm		
Back	50.080 – 50.130 mm		
Play between the seats and bushes	0.080 – 0.160 mm		
Maximum acceptable play from wear	0.200 mm		
Longitudinal play of control shaft	0.070 – 0.220 mm		
<b>Bloco</b>			
Pad	Cast iron monoblock, incorporates housings for distribution shaft / tappet fittings		
Cylinder hole diameter	106.850 – 106.900 mm		
Grinding	0.400 – 0.800 mm		
External diameter oversize	0.200 mm		
Diameter of housing for the main bushings covers	84.200 – 84.230 mm		
Diameter of housings for control shaft bushings:			
Front	54.780 – 54.802 mm		
Middle	54.280 – 54.305 mm		
Back	53.780 – 53.805 mm		
Diameter of tappet housings	15.000 – 15.018 mm		
Tappet oversize	0.100 mm - 0.200 mm - 0.300 mm		
Main bearing seat bore diameter	84.200 – 84.230 mm		
<b>Virabrequim e mancais</b>			
Crankshaft (balancing)	With integral counterweights		
Standard diameter of main seats	79.791 – 79.810 mm		
Main seat diameter undersizes	0.254 – 0.508 mm / 0.762 – 1.016 mm		
Main bushings bushes standard thickness	2.168 – 2.178 mm		
Main bushings bushes undersizes (internal diameter)	0.254 – 0.508 mm / 0.762 – 1.016 mm		
Play between the seats and the main bushings	0.034 – 0.103 mm		
Maximum acceptable play from wear (main bushings)	0.180 mm		
Link conrod seat standard diameter	63.725 – 63.744 mm		
Link conrod seat diameter undersizes	0.254 – 0.508 mm / 0.762 – 1.016 mm		
Link conrod standard thickness	1.805 – 1.815 mm		
Link conrod internal diameter undersizes	0.254 – 0.508 mm / 0.762 – 1.016 mm		
Play between the seats and the link conrod bushings	0.033 – 0.087 mm		
Maximum acceptable play from wear (link conrod bushings)	0.180 mm		
Crankshaft thrust link conrod standard thickness	3.378 – 3.429 mm		
Thrust link conrod additional thicknesses	0.127 – 0.254 mm / 0.381 – 0.508 mm		
Total width of thrust link conrods	31.766 – 31.918 mm		
Width of crankshaft main bushings	32.000 – 32.100 mm		

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