

Features
TN65F
TN75F
TN90F

PRODUCT
MANUAL



1 Introduction

TABLE OF CONTENTS

1	Introduction	
	Introduction	1/1-2
	Features & Benefits	1/3-5
2	Engine	
	Engine & Associated Parts	2.1/1-8
3	Power to Ground	
	3.1 Transmission Options	3.1/1-10
	3.2 Front and Rear Axles	3.2/1-10
4	Power to Implement	
	4.1 Hydraulic Systems	4.1/1-7
	4.2 Power Take Off Systems	4.2/1-5
5	Operator Environment	
	5.1 Cab Models	5.1/1-14
	5.2 Cabless Models	5.2/1-8
6	Instrumentation	
	6.1 Digital Instrument Panel	6.1/1-3
7	Specifications	
	7.1 Specifications	7.1/1-22

1 Introduction

TNF SERIES TRACTORS

INTRODUCING FOR SEASON 1998.... The innovative **TNF** series of orchard tractors. Three models at 57, 67 and 80 PTO horsepower will offer customers features like **SuperSteer™** front axle and an **INDUSTRY FIRST Traction Management System**. Serviceability, performance and operator comfort and convenience are second to none.

These tractors replace the models 4030, 4230 and 4430. Like the prior series, the new **TNF** models will be built at the New Holland factory in Jesi Italy.

Today, Italy is the world's foremost supplier of orchard, vineyard and specialty tractors. Major competitors in this market such as Landini, Lamborghini, Same, and even John Deere produce specialty tractors in Italy.

The **TNF** model designation indicates the tractor family as well as the gross engine horsepower. For example, a TN90-F indicates the following:

- T = Tractor**
- N = N Family of Tractors**
- 90 = Gross Engine Horsepower***
- F = Fruit**

* Rounded to the nearest even DIN horsepower rating

TN-F TRACTORS AND THE MODELS THEY REPLACE

MODEL	CYL.	CU.IN.	PTO HP	DIN ENG HP	ENGINE TORQUE RISE
4030	3	179	51	62	16%
TN65F	4	238	57	65	28%
4230	4	220	62	70	16%
TN75F	4	238	67	76	27%
4430	4	238	70	80	19%
TN90F	4	238T	80	88	32%

MAIN FEATURE AND BENEFIT SUMMARY

- ◆ **NEW HOLLAND FAMILY STYLING...** A sloping hood and rounded cab mean fewer pinch points to catch fruit, branches or vines.
- ◆ **MORE HORSEPOWER...** Fuel efficient New Holland-Iveco 4 cylinder engines deliver 57, 67, or 80 PTO horsepower at low rated speeds. Fuel consumption can be as little as 3.1 gallons per hour.
- ◆ **IMPROVED PTO DRIVELINES...** New clutches and simplified drivelines make operation easy, and the tractor more reliable.
- ◆ **TRANSMISSIONS...** The 16 x 16 base transmission features synchronized gears and a synchronized left side mechanical shuttling, with speeds **as low as .4 miles per hour** in the "A" range. The exclusive 32 x 16 with true **clutchless shuttle** is a New Holland exclusive.
- ◆ **FOUR WHEEL DIFFERENTIAL LOCK...** Electrohydraulic differential lock is standard equipment on FWD SuperSteer™ tractors.
- ◆ **IMPROVED 3-POINT HITCH...** New stabilizer system and raise height limit system provides precise control when using ground engaging equipment.
- ◆ **HYDRAULIC SYSTEM...** An open center system with stacked valves and a simplified reservoir and oil filtration system. The 12.4 GPM pump or the optional 16.9 GPM pump (standard with the 32 x 16 transmission) provide plenty of hydraulic flow for the most demanding implements.
- ◆ **SuperSteer™...** A New Holland exclusive that delivers up to 76° of turn angle, for maximum maneuverability in the tightest areas.
- ◆ **TRACTION MANAGEMENT SYSTEM...** Another New Holland exclusive that manages engagement of the four wheel drive system.
- ◆ **ELECTRONIC INSTRUMENT CLUSTER...** Including fuel and coolant temperature gauges, digital readouts and 19 different displays.
- ◆ **SUSPENDED PLATFORM...** On both cab and less cab units, it helps eliminate vibration, noise and dirt around the operator.
- ◆ **CAB... With standard heating and air conditioning,** these new cabs are quiet, clean, comfortable, and ergonomically designed with today's customer in mind.
- ◆ **DEALER INSTALLED ACCESSORY KITS...** Allows dealers to customize tractors to meet individual needs.
- ◆ **SERVICEABILITY...** The flip-up hood makes engine access for service quick and easy.

STANDARD EQUIPMENT AND FEATURES

ENGINE: TN65F

4 Cylinder Naturally Aspirated
238 cu. In. Displacement
57 PTO hp @ 2300 rpm
Under Hood Muffler
Horizontal Exhaust
Dual Element Air Filter
16.1 Gallon Fuel Tank
Electric Engine Shut-off
Thermostart Starting Aid

ENGINE: TN75F

4 Cylinder Naturally Aspirated
238 cu. in. Displacement
67 PTO hp @ 2300 rpm
Under Hood Muffler
Horizontal Exhaust
Dual Element Air Filter
16.1 Gallon Fuel tank
Electric Engine Shut off
Thermostart Starting Aid

ENGINE: TN90F

4 Cylinder Turbo Charged
238 cu. in. Displacement
80 PTO hp @ 2300 rpm
Under Hood Muffler
Horizontal Exhaust
Dual Element Air Filter
16.1 Gallon Fuel Tank
Electric Engine Shut-off
Thermostart Starting Aid

CLUTCH & TRANSMISSION: **TN65F**

11 in. **Organic** Driveline Clutch
16 x16 (4 ranges of 4
synchronized gears
and synchronized mechanical
shuttle
32 x 16 Transmission (Optional)

CLUTCH & TRANSMISSION:

TN75F & TN90F

11 in. **Cerametallic** Driveline Clutch
16 x 16 (4 ranges of 4 synchronized
gears)
and synchronized mechanical shuttle.
32 x 16 Transmission (Optional)

HYDRAULIC SYSTEM: ALL MODELS

Open Center System
Tandem Gear Pumps
Maximum Flow at rated speed:
Implement Pump:
12.4 GPM - (16 x 16 Transmission)
16.9 GPM - (32 x 16 Transmission)
Steering Pump (16 x16 Trans):
7.2 GPM
Steering Pump (32 x 16 Trans):
9.2 GPM
Two Remote Valves with Quick Release
Couplers

INSTRUMENTATION: ALL MODELS:

Electronic Instrument Cluster with Digital
Readout for PTO and Ground
Speed

LIGHTING: ALL MODELS

Two Halogen Front Headlights
Turn Signals & Flashers

OPEN PLATFORM: ALL MODELS

Suspended Platform
Foldable Midmounted roll bar
One Rear Worklight

DELUXE CAB: ALL MODELS

Heater and Air Conditioner
Integral ROPS
Suspended Platform & Cab
Two Doors with Locks
Tinted Glass
Hinged Front and Rear Windows
Front & Rear Wipers and Washers
Interior Light
Two Front and Rear Worklights

STANDARD EQUIPMENT AND FEATURES (CONT.)

PTO: ALL MODELS

11 in. Cerametallic PTO Clutch
Independent, Live, 540/1000 rpm

DIFFERENTIAL LOCK: ALL MODELS

2WD— Mechanical
4WD— Electrohydraulic Front and Rear

BRAKES: ALL MODELS

Wet Disc – Self Equalizing & Self
Adjusting
Independent Parking Brake

STEERING SYSTEM: ALL MODELS

Hydrostatic Power Steering

FRONT AXLE: ALL MODELS

2WD — 55° Turn Angle
SuperSteer™ 4WD
Automatic Traction Management
System
76° Turn Angle

3- POINT HITCH: ALL MODEL

Category II Fixed Link Ends
Telescopic Stabilizers
Two Lever Controls (Position & Draft)
Fast Raise & Lower Switch

ELECTRICAL: ALL MODELS

12 - volt Battery (800 ^{CCA})
45 - amp Alternator—Less Cab
65 - amp Alternator—Cab

SEAT: WITH CAB MODELS

Cloth Seat Cover with Operator's Presence
Sensor
Retractable Seat Belts

SEAT: LESS CAB MODELS

Vinyl Seat Cover with Operator's Presence
Sensor
Retractable Seat Belts

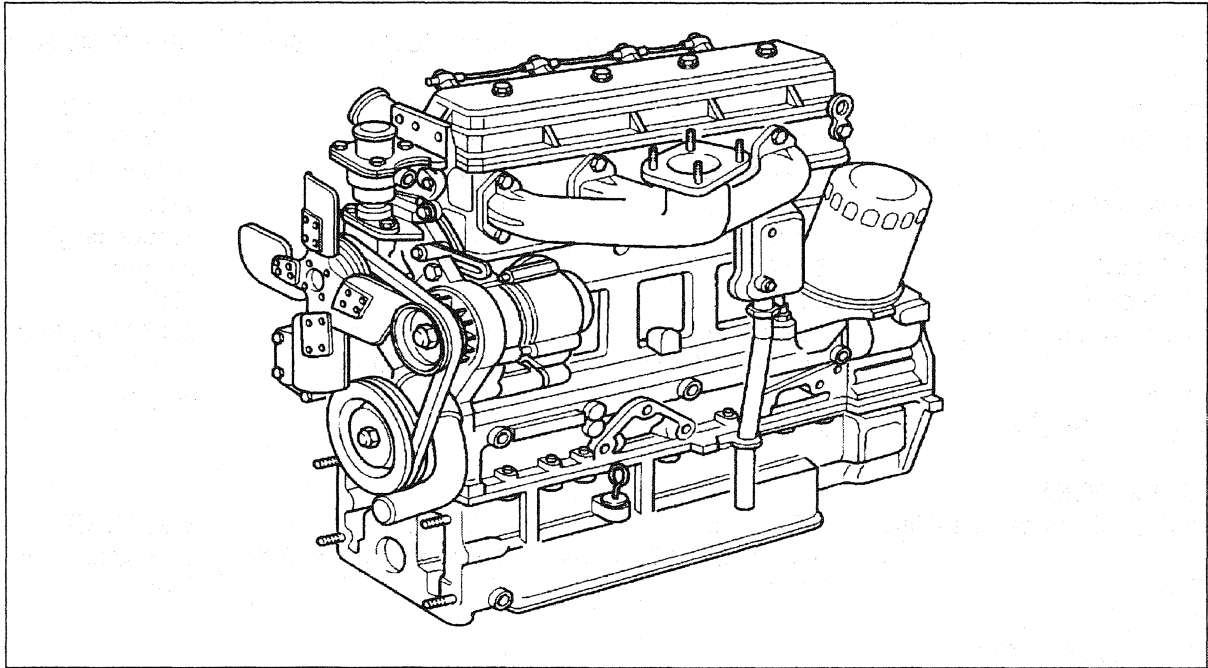
WARRANTY: ALL MODELS

New Holland Standard Warranty Applies



2 Engine

2.1 Engine And Associated Parts



Highlights

- ◆ TNF series tractors use the latest version of the Iveco 8000 series engine, especially designed and manufactured for New Holland. Iveco is recognized world-wide as a leader in diesel engine technology. Over 300,000 Iveco engines are built annually, and used in applications ranging from agriculture to aviation, to marine uses and railroad locomotives.
- ◆ All TNF models utilize a 238 cubic inch, four cylinder diesel running at 2300 RPM. The TN65F and TN75F are naturally aspirated, while the TN90F is turbocharged. These engines meet all international emission regulations. Torque reserves are excellent, with up to 32% available in the TN90F.
- ◆ Utilizing a common engine simplifies a dealer's parts stocking requirements, and makes servicing from the dealership easier.

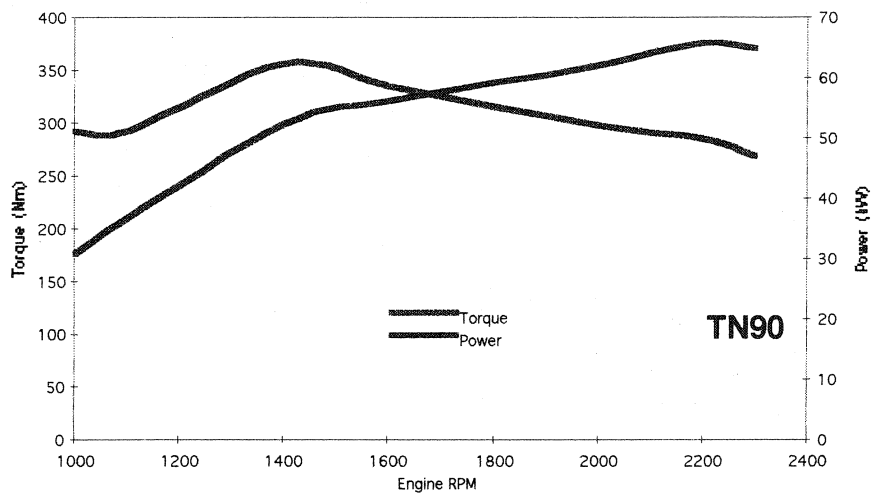
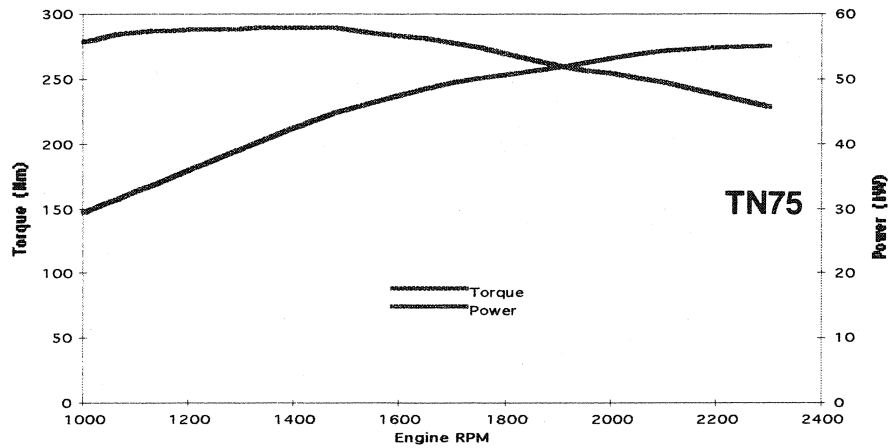
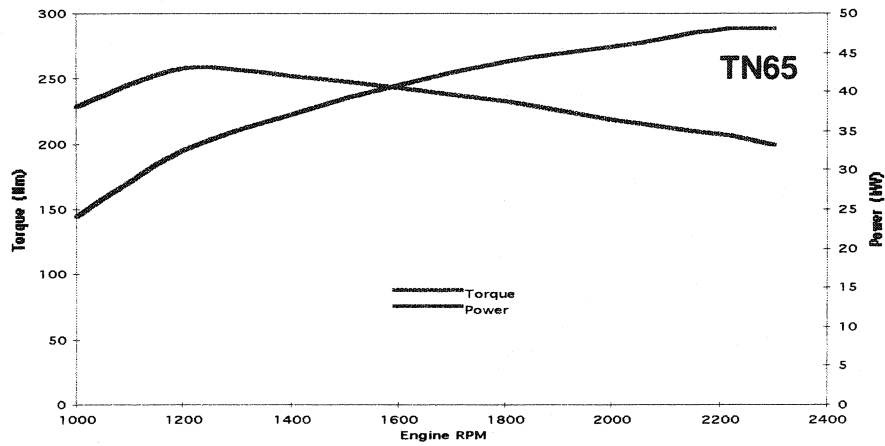
2 Engine

2.1 Engine characteristics

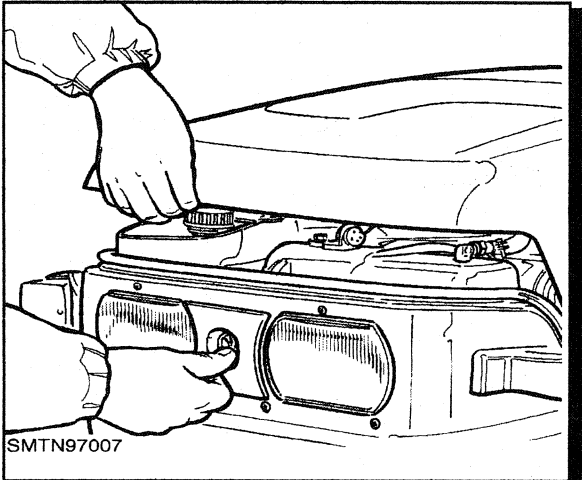
	TN65F	TN75F	TN90F
ENGINE	NH IVECO 8000 Ser.	NH IVECO 8000 Ser.	NH IVECO 8000 Ser.
Cylinders	4	4	4
Displacement	238 CI (3.9 L)	238 CI (3.9 L)	238 CI (3.9 L)
Bore x Stroke in inches (mm)	4.09 x 4.53 (104 x 115)	4.09 x 4.53 (104 x 115)	4.09 x 4.53 (104 x 115)
Compression Ratio	17:1	17:1	17:1
Aspiration	Normally	Normally	Turbocharged
Gross HP (kW)	65 (48)	76 (56)	88 (65)
Rated Speed (RPM)	2300	2300	2300
Max Torque in ft-lbs (Nm)	188@1400 rpm (255@1400 rpm)	214@1400 rpm (290@1400(rpm))	262@1400 rpm (355@1400 rpm)
PTO HP (kW)	57 (42.5)	67 (50)	80 (59.7)
Engine Torque Rise %	28	27	32
COOLING SYSTEM			
System Capacity in gallons (liters)	2.77 (10.5)	2.77 (10.5)	3.03 (10.5)
Fan	6 Blades/ 16.5 Inches	6 Blades/ 16.5 Inches	6 Blades/ 16.5 in.
Drive Type	Fixed	Fixed	Fixed
FUEL /AIR/ OIL SYSTEM			
Fuel- Injection Type	Direct	Direct	Direct
Injection Pump Type	Rotary	Rotary	Rotary
Injection Pump Make	Bosch	Bosch	Bosch
Fuel Filter	Single Element	Single Element	Single Element
Fuel Capacity in Gallons (Liter)	16.1 (61)	16.1 (61)	16.1 (61)
Air Filter Type	Dry/ Dual Elements	Dry/ Dual Elements	Dry/ Dual Elements
Crankcase Capacity With Filter in Gallons (Liter)	2.8 (10.5)	2.8 (10.5)	2.8 (10.5)
EXHAUST SYSTEM			
Muffler	Under Hood	Under Hood	Under Hood
Exhaust Outlet	Horizontal	Horizontal	Horizontal
ELECTRICAL			
System voltage	12	12	12
Alternator (amps)			
Less cab	45	45	45
Cab	65	65	65
Battery			
Amp hrs	100	100	100
CCA	800	800	800
Cold Start Aid	Thermostart	Thermostart	Thermostart

2 Engine

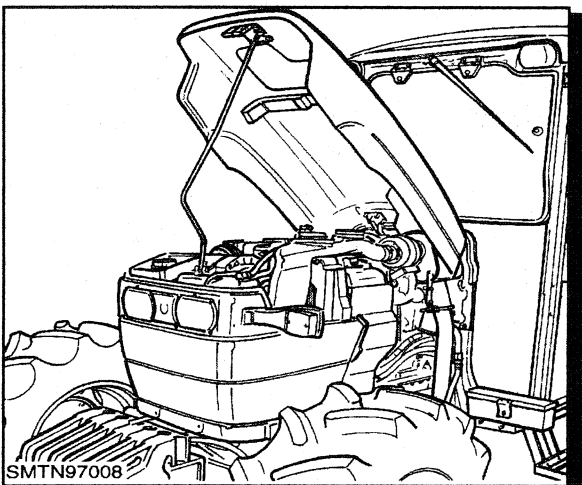
2.1 Engine characteristics



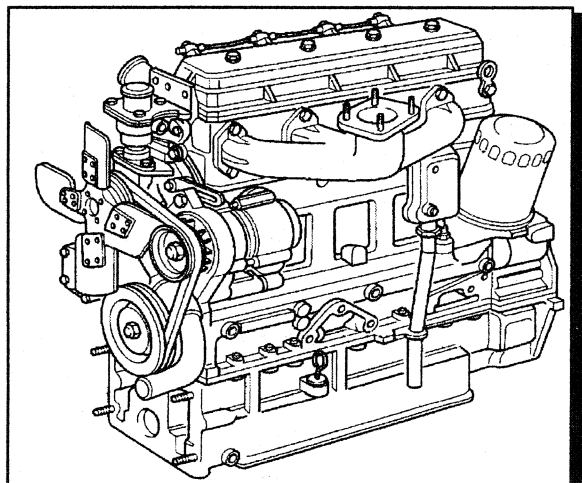
2 Engine



Open the hood by pressing the New Holland Logo at the front of the tractor. The hood is light weight and can easily be lifted with one hand.

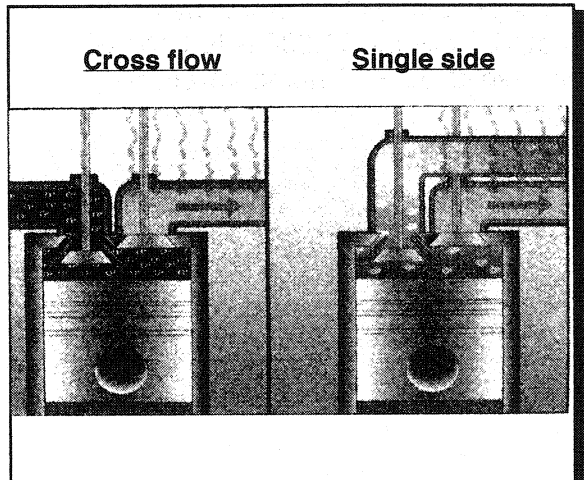


With the hood open, the engine compartment is exposed, making routine service checks safe and easy. Access for any type of service or repair work is excellent.



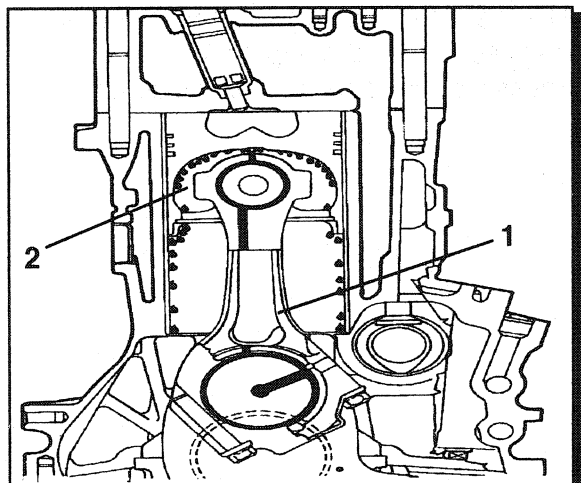
All three TNF series tractors are powered by the latest version of the Iveco 8000 series engines. These are 4-cylinder, 238 cu.in. engines with a rated speed of 2300 rpm. These engines develop excellent torque back-up with the TN90F delivering up to 262 ft.-lb at 1400 rpm.

2 Engine

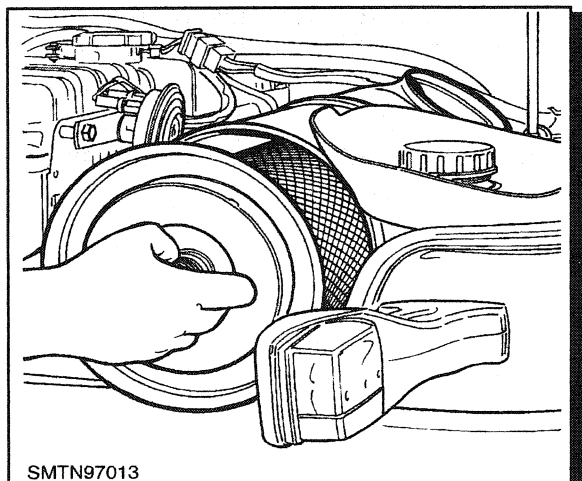


A dry cylinder liner is used in all TNF series engines. This design allows the engine to be rebuilt simply and economically. Remove the worn liner and press a new one into place. There are no concerns about coolant leakage.

The cross-flow cylinder head design allows cool air to be pulled into the left side of the engine, while the hot exhaust gases are pushed out the right side. Keeping the intake air cool and dense, promotes efficient fuel combustion and maximum power production.

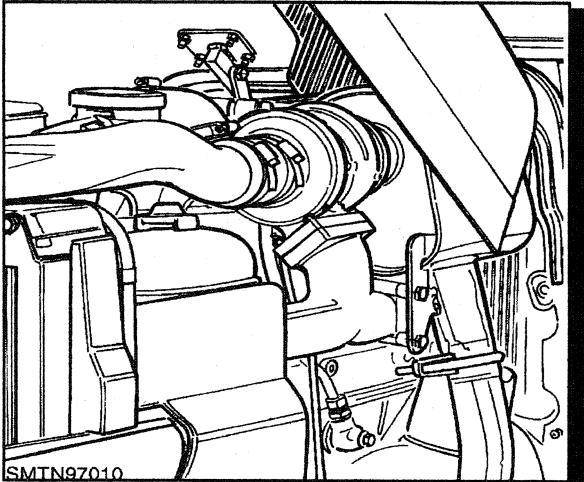


The connecting rods (1) are center-drilled to lubricate the wrist-pin bushings with pressurized oil. At the same time, the underside of each piston is sprayed with oil (2) to carry away heat. By efficiently lubricating and cooling the internal components, engine life and durability are improved.

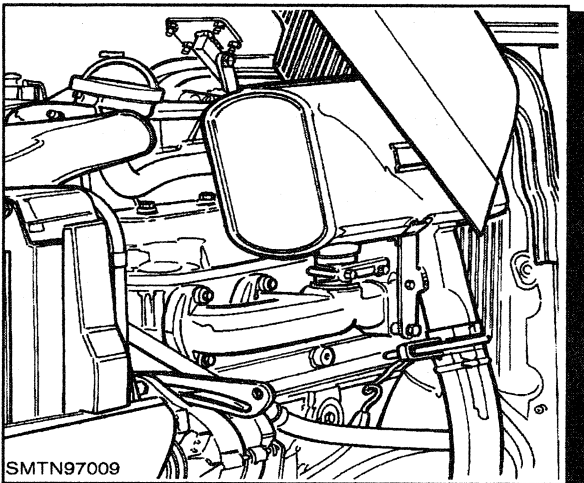


A dry type, dual element air filter is located in front of the radiator, within the engine front and side screens. This allows leaves, straw or chaff to be trapped before they can enter the filter. All models are equipped with a rubber dust collector valve which should be "pinched" every 10 hours to discharge accumulated dust. Inner and outer air filter cartridges should be replaced every 400 hours.

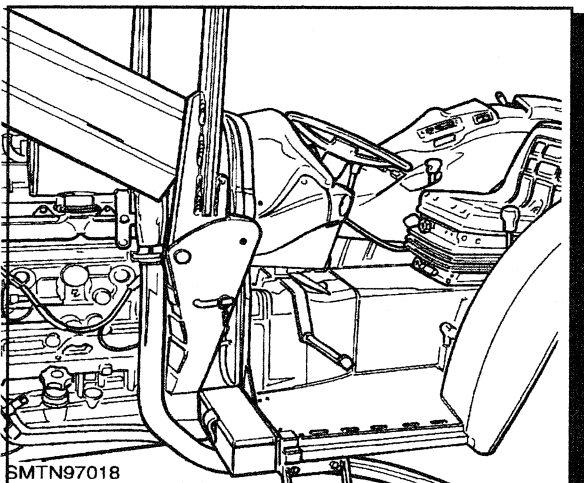
2 Engine



The TN65F and TN75F are naturally aspirated, while the TN90F is turbocharged to achieve its 80 PTO horsepower rating. Turbocharging also improves engine torque response and reduces noise, fuel consumption and emissions.



All TNF series tractors have under-hood mufflers as standard equipment. This improves visibility and reduces noise levels.



The exhaust is channeled downward and discharges under the operator's platform. Overall tractor height is reduced, emissions are not blown back into the operator's face on less cab units, and damage to delicate fruit and branches is reduced.

Thank you so much for reading.
Please click the “Buy Now!”
button below to download the
complete manual.



After you pay.

You can download the most
perfect and complete manual in
the world immediately.

Our support email:

ebooklibonline@outlook.com