

750 EXCAVATOR

Machine Weight

With 27 ft 1 in. (8.25 m) Boom; 14 ft 5 in. (4.4 m) Arm;
72 in. (1.82 m), 4.8 cu yd (3.67m³), 7791 lb (3533 kg) Bucket
Double-Bar Grouser of:
26 in. (650 mm) 164,075 lb (74 423 kg)
30 in. (750 mm) 165,618 lb (75 123 kg)
36 in. (900 mm) 167,602 lb (76 023 kg)

Machine Weight

With 23 ft 4 in. (7.1 m) ME Boom; 9 ft 8 in. (2.95 m) ME Arm;
72 in. (1.82 m), 6.5 cu yd (4.97 m³), 9854 lb (4469 kg) Bucket
Double-Bar Grouser of:
26 in. (650 mm) 166,381 lb (75 469 kg)
30 in. (750 mm) 167,924 lb (76 169 kg)
36 in. (900 mm) 170,129 lb (77 169 kg)

Transport Height:

11 ft 10 in. (3.6 m) Arm 15 ft 0 in. (4.57 m)
14 ft 5 in. (4.4 m) Arm 15 ft 0 in. (4.57 m)
17 ft 9 in. (5.4 m) Arm 15 ft 0 in. (4.57 m)
9 ft 8 in. (2.95 m) ME Arm
with ME Boom 16 ft 6 in. (5.04 m)

Transport Length:

11 ft 10 in. (3.6 m) Arm 46 ft 6 in. (14.16 m)
14 ft 5 in. (4.4 m) Arm 46 ft 6 in. (14.16 m)
17 ft 9 in. (5.4 m) Arm 46 ft 6 in. (14.16 m)
9 ft 8 in. (2.95 m) ME Arm
with ME Boom 43 ft 3 in. (13.18 m)

Machine Width with 36 in.

(900 mm) Double-Bar Grouser:

Operating Position 14 ft 3 in. (4.35 m)
Transport Position 12 ft 3 in. (3.73 m)

ENGINE.....Cummins N14-C

Number of Cylinders and Displacement	6 cylinders, 854 cu in. (14 L)
Air Intake System.....	Turbocharged
Bore and Stroke	5.5 x 6.0 in. (140 x 152 mm)
Rated Power at 1800 rpm.....	434 SAE net hp (324 kW)
Maximum Net Torque at 1400 rpm	1290 lb-ft (1749 N•m)
Valve Clearance (Cold):	
Injector Adjusting Screw	124 lb-in. (14 N•m)
Intake.....	0.014 in. (0.35 mm)
Exhaust	0.027 in. (0.68 mm)
Speeds:	
Variable Speed Throttle Lever:	
Slow Idle	850 ± 100 rpm
Fast Idle.....	2070 ± 50 rpm
Engine rpm Dial:	
Slow Idle	850 ± 100 rpm
Fast Idle Standard Mode	1940 ± 50 rpm, non-adjustable
Quick Idle	850 ± 100 rpm
Auto-Idle Speed.....	1650 ± 100 rpm, non-adjustable
“E” (Economy).....	Pump flow rate changes
“S/P” (Super Power).....	2070 ± 50 rpm, non-adjustable
Gap at Throttle Lever Stop Screws.....	0.004—0.012 in. (0.1—0.3 mm)
Rated Full Load	1800 rpm
Electrical System	24 volt, negative ground
Alternator	75-amp

POWER TRAIN

Propel Motor	Two-speed variable-displacement, axial piston
Propel Brake	Multiple-disk, hydraulically released, spring applied
Propel Gearbox	Triple-reduction, planetary drive

HYDRAULIC SYSTEM—Open-Center, Flow and Pressure Compensated

Main Hydraulic Pump.....	Variable-displacement, bent-axis piston type (2 used)
Oil Temperature	120 ± 10°F (50 ± 5°C)
Flow at:	
1400 psi (9655 kPa), 2000 ± 10 rpm:	
New	128 ± 5 gpm (485 ± 20 L/min)
Minimum	109 gpm (413 L/min)
3600 psi (24 820 kPa), 2000 ± 10 rpm:	
New	90 ± 5 gpm (340 ± 20 L/min)
Minimum	75 gpm (284 L/min)
Pilot Pump Flow, Typical New at 2070 ± 50 rpm,	
570 + 100 - 0 psi (3930 + 689 - 0 kPa).....	9.0 gpm (34 L/min)
Pressure Setting:	
Engine Speed	2070 ± 50 rpm
Pilot Pressure Regulating Valve	570 + 100 - 0 psi (3930 + 689 - 0 kPa)
Valve Spool Actuation Pilot Pressure (Min)	485 psi (3344 kPa)
Power Boost Solenoid Valve (Min)	500 psi (3447 kPa)
Propel Speed Change Solenoid Valve	
Engine Speed at Super Power or Economy Mode	500 psi (3447 kPa)
Swing Priority Solenoid Valve (Min).....	0 psi (0 kPa)
System Relief Valve.....	4480 + 215 - 0 psi (30 888 + 1482 - 0 kPa)
Power Boost, Propel Over Relief.....	4980 + 140 - 0 psi (30 891 + 965 - 0 kPa)

RELIEF VALVE SETTINGS

Oil Temperature	120 ± 10°F (50 ± 5°C)
Engine Speed	1600 rpm
Arm Out	4980 + 140 - 0 psi (34 335 + 965 - 0 kPa)
Boom Raise and Lower, Arm In	4700 + 142 - 0 psi (32 405 + 979 - 0 kPa)
Bucket Curl and Dump	4700 + 140 - 0 psi (32 405 + 965 - 0 kPa)
Swing Left and Right.....	4700 + 140 - 0 psi (32 405 + 965 - 0 kPa)
Propel Motor Crossover.....	4980 ± 142 psi (34 335 ± 979 kPa)
Swing Motor Crossover	4200 + 215 - 70 psi (28 957 + 1482 - 482 kPa)

CYCLE TIMES (Typical, New at Fast Idle)

Oil Temperature	120 ± 10°F (50 ± 5°C)
Boom:	
Raise	4.0 ± 0.4 sec
Lower.....	3.1 ± 0.4 sec
Arm:	
In	4.3 ± 0.4 sec
Out.....	3.2 ± 0.4 sec
Bucket:	
Load	2.7 ± 0.4 sec
Dump.....	3.0 ± 0.4 sec
Swing Left or Right (Three Revolutions from a Running Start)	21.0 ± 2.5 sec
Propel for 65 ft (20 m) from a Running Start:	
Fast	15.5 ± 1.0 sec
Slow.....	22 ± 2.0 sec

LUBRICANTS

See front of this book for the codes [].

CAPACITIES

	U.S.	Metric
Carrier Rollers [S]	AR	AR
Engine:		
Cooling System [N]	21.25 gal	80.4 L
Crankcase w/ Filter [E].....	11.5 gal	44 L
Front Idlers [S]	AR	AR
Fuel Tank	218 gal	825 L
Hydraulic:		
System [R]	174 gal	660 L
Oil Tank [R]	96 gal	363 L
Propel Gearbox (Each) [J]	4.75 gal	18.0 L
Pump Drive Gearbox [J]	1.4 gal	5.2 L
Swing Gearbox (Each) [J].....	3.25 gal	12.3 L
Swing Bearing Gear:		
At Service Interval.....	1.1 lb	0.5 kg
Clean and Replace	5.3 gal	20 L
Track Rollers [S]	AR	AR