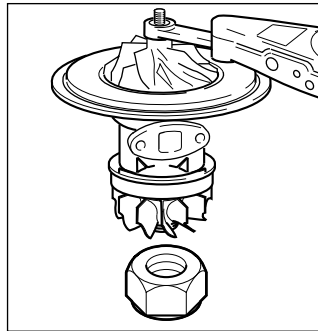
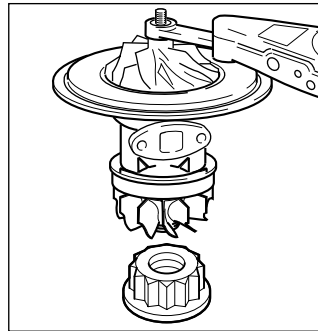


HX & HY Service Data Sheet 1 of 10

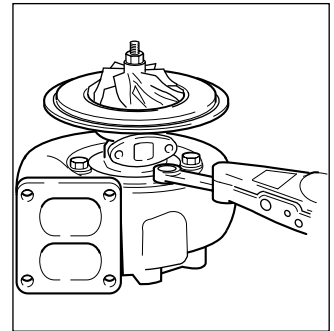
Locknut, Compressor
Wheel (Item 61)



Locknut, Compressor
Wheel (Item 61)



Bolt, Turbine
Housing (Item 57)



Turbo Model

Nm (lb. in)

6 pt.
Hexagon

Nm (lb. in)

12 pt.
Hexagon

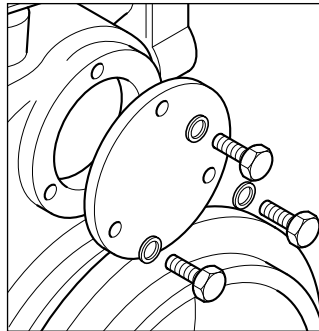
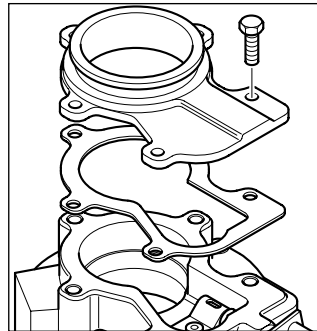
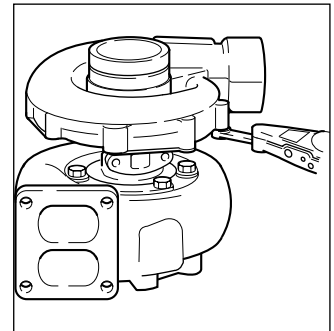
Nm (lb. in)

HX20W	T1:1.5 (14)T2:2.5 (22) see Note 9	N/A	N/A
HX25/25W/27W	T1: 3.9 (35)T2: 4.9 (44) see Note 9	N/A	N/A
HX30 (68mm wheel)	16 (142)	15 (135)	N/A
HX30 (72mm wheel)	16 (142)	15 (135)	N/A
HX32	16 (142)	15 (135)	N/A
HX35	16 (142)	15 (135)	20.3 (180)
HX40	16 (142)	15 (135)	20.3 (180)
HX50	17 (150)	N/A	20.3 (180) see Note 6
HX55/52	17 (150)	N/A	20.3 (180) see Note 6
HX60/HT60	40.7 (360)	N/A	N/A
HX80/85	45.2 (400)	N/A	20.3 (180)
HT80	45.2 (400)	N/A	20.3 (180)
HX82	45.2 (400)	N/A	20.3 (180)
HX83	45.2 (400)	N/A	20.3 (180)
HY30W	N/A	15 (135)	N/A
HY35W	N/A	15 (135)	N/A

Caution

Always refer to [Service Notes](#) before using Holset Service Data.

HX & HY Service Data Sheet 2 of 10

Bolt, Cover Plate
(item 67)Bolt, Exhaust Adapter
(item 67)Bolt, Compressor
Housing (Item 59)

Turbo Model

Nm (lb. in)

Nm (lb. in)

Nm (lb. in)

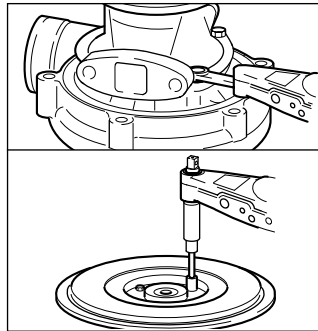
HX20W	N/A	N/A	N/A
HX25/25W/27W	N/A	N/A	N/A
HX30 (68mm wheel)	N/A	N/A	N/A
HX30 (72mm wheel)	N/A	N/A	N/A
HX32	N/A	25 (220)	N/A
HX35	N/A	25 (220)	N/A
HX40	N/A	25 (220)	N/A
HX50	8.5 (75)	25 (220)	8.5 (75)
HX55/52	8.5 (75)	25 (220)	N/A
HX60/HT60	8.5 (75)	N/A	N/A
HX80/85	N/A	N/A	N/A
HT80	N/A	N/A	N/A
HX82	N/A	N/A	N/A
HX83	N/A	N/A	N/A
HY30W	N/A	25 (220)	N/A
HY35W	N/A	25 (220)	N/A

Caution

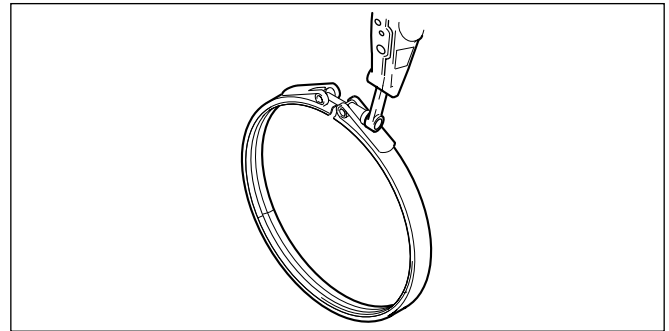
Always refer to [Service Notes](#) before using Holset Service Data.

HX & HY Service Data Sheet 3 of 10

**Screw, Diffuser
(Item 56)**



Locknut, V-Band Turbine (Item 28)



Turbo Model

Nm (lb. in)

Nm (lb. in)

Part No.
3539458

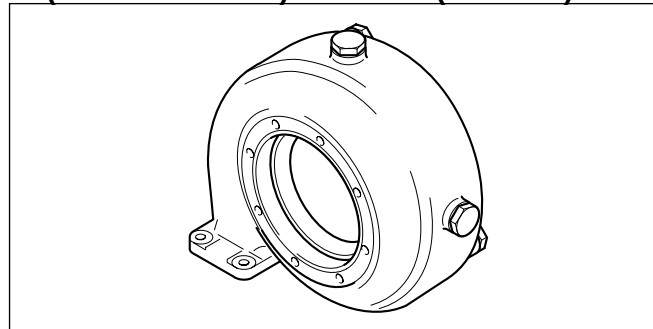
HX20W	N/A	3.4 +/-0.5 (30 +/- 4) (see note 13)	N/A
HX25/25W/27W	N/A	8.3 +/-0.5 (74 +/- 4) (See note 13)	N/A
HX30 (68mm wheel)	N/A	8.5 (75)	N/A
HX30 (72mm wheel)	N/A	8.5 (75)	N/A
HX32	N/A	8.5 (75)	N/A
HX35	N/A	N/A	N/A
HX40	N/A	N/A	N/A
HX50	N/A	N/A	N/A
HX55/52	N/A	8.5 (75)	N/A
HX60/HT60	N/A	8.5 (75) - see note 14	11.3 (100) - see note 14
HX80/85	24.9 (220)	N/A	N/A
HT80	24.9 (220)	N/A	N/A
HX82	24.9 (220)	N/A	N/A
HX83	24.9 (220)	N/A	N/A
HY30W	N/A	8.5 (75)	N/A
HY35W	N/A	8.5 (75)	N/A

Caution 

Always refer to [Service Notes](#) before using Holset Service Data.

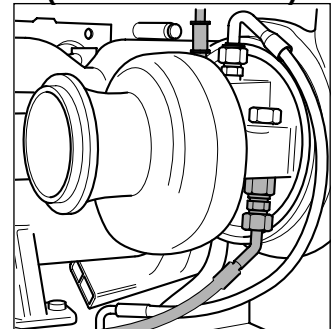
HX & HY Service Data Sheet 4 of 10

Water Fitting,
Turbine housing
(Item 101/102/103)



Plug, Water Pipe,
Turbine Housing
(Item 104)

Water Fitting,
Bearing Housing
(Item 101/103/105)



Turbo Model

Nm (lb. in)

Nm (lb. in)

Nm (lb. in)

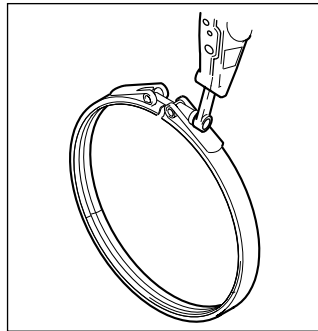
HX20W	N/A	N/A	N/A
HX25/25W/27W	N/A	N/A	N/A
HX30 (68mm wheel)	N/A	N/A	N/A
HX30 (72mm wheel)	N/A	N/A	N/A
HX32	N/A	N/A	N/A
HX35	67.8 (600)	N/A	40 (354)
HX40	67.8 (600)	N/A	40 (354)
HX50	67.8 (600)	N/A	N/A
HX55/52	160 (1417)	N/A	N/A
HX60/HT60	N/A	N/A	N/A
HX80/85	74.6 (660)	67.8 (600)	N/A
HT80	N/A	N/A	N/A
HX82	N/A	N/A	N/A
HX83	N/A	N/A	N/A
HY30W	N/A	N/A	N/A
HY35W	N/A	N/A	N/A

Caution

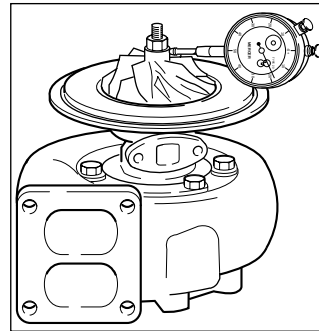
Always refer to [Service Notes](#) before using Holset Service Data.

HX & HY Service Data Sheet 5 of 10

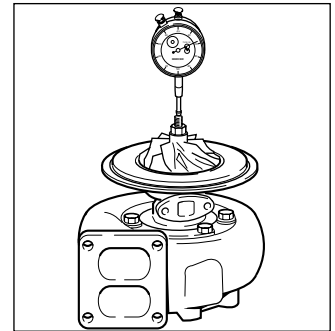
Locknut, V-Band
Compressor (Item 29)



Radial Movement
(TIR)



Axial Clearance



Turbo Model

Nm (lb. in)

mm (in)

mm (in)

Aluminium
Housing

Cast Iron
Housing

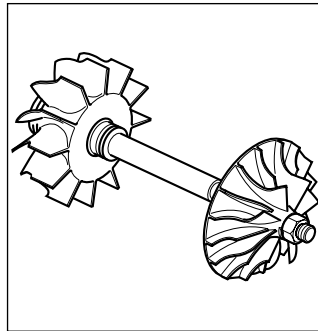
Turbo Model	Aluminium Housing	Cast Iron Housing	Nm (lb. in)	mm (in)
HX20W	N/A	N/A	N/A See Note 10	0.051 - 0.127 (0.002 - 0.005)
HX25/25W/27W	N/A	N/A	0.381 - 0.660 (0.015 - 0.026)	0.051 - 0.127 (0.002 - 0.005)
HX30 (68mm wheel)	N/A	N/A	0.330 - 0.508 (0.013 - 0.020)	0.025 - 0.127 (0.001 - 0.005)
HX30 (72mm wheel)	N/A	N/A	0.330 - 0.508 (0.013 - 0.020)	0.025 - 0.127 (0.001 - 0.005)
HX32	N/A	N/A	0.330 - 0.508 (0.013 - 0.020)	0.025 - 0.127 (0.001 - 0.005)
HX35	N/A	N/A	0.330 - 0.508 (0.013 - 0.020)	0.025 - 0.127 (0.001 - 0.005)
HX40	N/A	N/A	0.330 - 0.508 (0.013 - 0.020)	0.025 - 0.127 (0.001 - 0.005)
HX50	8.5 (75)	N/A	0.381 - 0.610 (0.015 - 0.024)	0.025 - 0.127 (0.001 - 0.005)
HX55/52	8.5 (75)	N/A	0.406 - 0.610 (0.016 - 0.024)	0.025 - 0.127 (0.001 - 0.005)
HX60/HT60	8.5 (75)	N/A	0.406 - 0.584 (0.016 - 0.023)	0.051 - 0.152 (0.002 - 0.006)
HX80/85	8.5 (75)	8.5 (75)	0.254 - 0.787 (0.010 - 0.031)	0.025 - 0.152 (0.001 - 0.006)
HT80	8.5 (75)	N/A	0.254 - 0.787 (0.010 - 0.031)	0.025 - 0.152 (0.001 - 0.006)
HX82	8.5 (75)	12 (106)	0.254 - 0.787 (0.010 - 0.031)	0.025 - 0.152 (0.001 - 0.006)
HX83	N/A	12 (106)	0.254 - 0.787 (0.010 - 0.031)	0.025 - 0.152 (0.001 - 0.006)
HY30W	N/A	N/A	0.356 - 0.559 (0.014 - 0.022)	0.025 - 0.127 (0.001 - 0.005)
HY35W	N/A	N/A	0.326 - 0.508 (0.013 - 0.020)	0.025 - 0.127 (0.001 - 0.005)

Caution

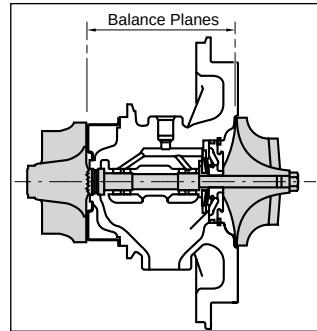
Always refer to [Service Notes](#) before using Holset Service Data.

HX & HY Service Data Sheet 6 of 10

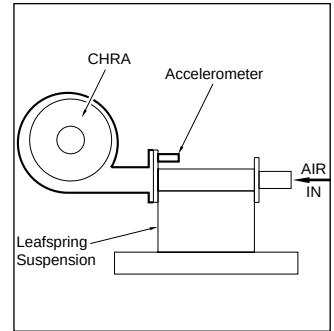
Rotor Balance



Core Balance at 4000 rev/min



Vibration Level on VSR rig



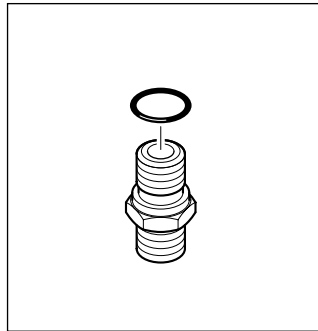
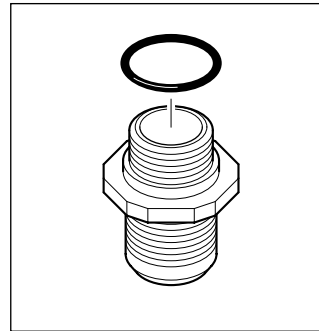
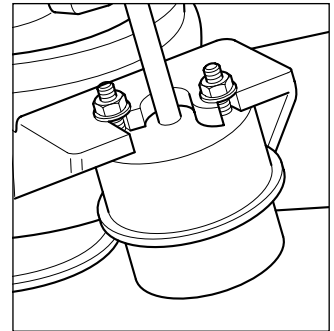
Turbo Model

	Rotor Balance		Core Balance at 4000 rev/min		Vibration Level on VSR rig	
	Turbine End	Compressor End	Turbine End	Compressor End	At speeds up to 100,000 rev/min	At speeds between 100,000 and 130,000 rev/min
HX20W	N/A	N/A	N/A	N/A	1 g See Note 11	2 g See Note 11
HX25/25W/27W	N/A	N/A	N/A	N/A	1 g See Note 11	2 g See Note 11
HX30 (68mm wheel)	1.1 (0.0015)	1.1 (0.0015)	0.75 (0.0010)	1.0 (0.0014)	N/A	N/A
HX30 (72mm wheel)	1.4 (0.0019)	1.4 (0.0019)	0.75 (0.0010)	1.0 (0.0014)	N/A	N/A
HX32	1.4 (0.0019)	1.4 (0.0019)	1.4 (0.0019)	1.4 (0.0019)	N/A	N/A
HX35	1.4 (0.0019)	1.4 (0.0019)	1.5 (0.0020)	1.8 (0.0025)	N/A	N/A
HX40	1.4 (0.0019)	1.4 (0.0019)	1.5 (0.0020)	1.8 (0.0025)	N/A	N/A
HX50	2.2 (0.003)	4.4 (0.006)	2.2 (0.0030)	4.4 (0.0060)	N/A	N/A
HX55/52	2.2 (0.003)	4.4 (0.006)	2.2 (0.0030)	4.4 (0.0060)	N/A	N/A
HX60/HT60	4.4 (0.006)	7.2 (0.010)	4.4 (0.0060)	7.2 (0.010)	N/A	N/A
HX80/85	7.2 (0.010)	12.3 (0.017)	7.2 (0.010)	12.3 (0.017)	N/A	N/A
HT80	7.2 (0.010)	12.3 (0.017)	5.8 (0.0080)	5.8 (0.0080)	N/A	N/A
HX82	7.2 (0.010)	12.3 (0.017)	7.2 (0.010)	12.3 (0.017)	N/A	N/A
HX83	N/A	N/A	N/A	N/A	N/A	N/A
HY30W	1.1 (0.0015)	1.1 (0.0015)	0.9 (0.0012)	1.25 (0.0017)	N/A	N/A
HY35W	1.1 (0.0015)	1.1 (0.0015)	1.26 (0.0017)	1.26 (0.0017)	N/A	N/A

Caution

Always refer to [Service Notes](#) before using Holset Service Data.

HX & HY Service Data Sheet 7 of 10

Adapter, Oil
Inlet (Item 113)Adapter, Oil
Drain (Item 116)Locknut, Wastegate
Actuator (Item 83)

Turbo Model

Nm (lb. in)

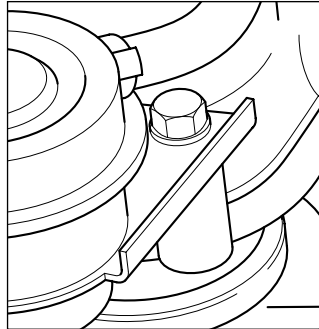
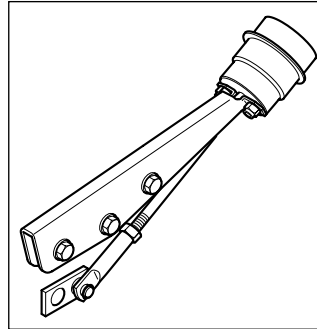
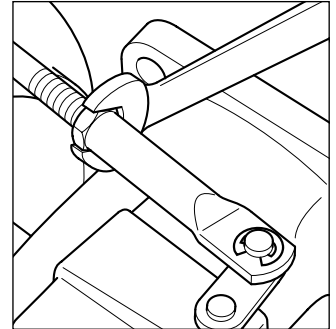
Nm (lb. in)

Nm (lb. in)

HX20W	24 (211)	N/A	N/A
HX25/25W/27W	24 (211)	N/A	N/A
HX30 (68mm wheel)	35 (308)	N/A	8.5 (75)
HX30 (72mm wheel)	35 (308)	N/A	8.5 (75)
HX32	35 (308)	N/A	8.5 (75)
HX35	35 (308)	N/A	8.5 (75)
HX40	40 (352)	25 (221)	8.5 (75)
HX50	40 (352)	N/A	8.5 (75)
HX55/52	N/A	N/A	8.5 (75)
HX60/HT60	N/A	N/A	8.5 (75)
HX80/85	N/A	N/A	N/A
HT80	N/A	N/A	N/A
HX82	N/A	N/A	N/A
HX83	N/A	N/A	N/A
HY30W	35 (312)	N/A	8.5 (75)
HY35W	35 (312)	N/A	8.5 (75)

Caution Always refer to [Service Notes](#) before using Holset Service Data.

HX & HY Service Data Sheet 8 of 10

Screw, Wastegate
Actuator (Item 106)Screw, Wastegate
Brace Bracket
(Item 139/142)Jam Nut, Wastegate
Actuator (Item 128)

Turbo Model

Nm (lb. in)

Nm (lb. in)

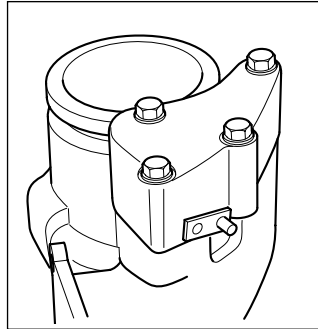
Nm (lb. in)

HX20W	19.6 +/- 1 (173 +/- 9)	N/A	6.9 +/- 1.9 (61 +/- 17)
HX25/25W/27W	19.6 +/- 1 (173 +/- 9)	N/A	6.9 +/- 1.9 (61 +/- 17)
HX30 (68mm wheel)	N/A	25 (220)	8.5 (75)
HX30 (72mm wheel)	N/A	25 (220)	8.5 (75)
HX32	N/A	25 (220)	8.5 (75)
HX35	N/A	25 (220)	8.5 (75)
HX40	N/A	25 (220)	8.5 (75)
HX50	N/A	25 (220)	8.5 (75)
HX55/52	N/A	25 (220)	8.5 (75)
HX60/HT60	N/A	25 (220)	8.5 (75)
HX80/85	N/A	N/A	N/A
HT80	N/A	N/A	N/A
HX82	N/A	N/A	N/A
HX83	N/A	N/A	N/A
HY30W	N/A	N/A	8.5 (75)
HY35W	N/A	N/A	8.5 (75)

Caution Always refer to [Service Notes](#) before using Holset Service Data.

HX & HY Service Data Sheet 9 of 10

Screw, Wastegate Valve Body (Item 79)



Turbo Model

Nm (lb. in)

HX20W	N/A
HX25/25W/27W	N/A
HX30 (68mm wheel)	N/A
HX30 (72mm wheel)	N/A
HX32	N/A
HX35	N/A
HX40	N/A
HX50	30 (270)
HX55/52	30 (270)
HX60/HT60	N/A
HX80/85	N/A
HT80	N/A
HX82	N/A
HX83	N/A
HY30W	N/A
HY35W	N/A

Caution

Always refer to [Service Notes](#) before using Holset Service Data.

HX & HY Service Data Sheet 10 of 10

Service Data Sheet Notes

1. The list of turbo models represents the majority of current specifications. If your model does not appear in the Service Data Sheets please refer to your nearest Holset agent for guidance.
2. Service data is sourced from engineering specifications and drawings.
3. All permissible service allowances are included in this data set.
4. Holset quote nominal torque for turbocharger assembly. Apply torque using a calibrated torque wrench with +/-1 Nm (+/-10 lb.in) capability. Breakaway torque may vary up to 40% from nominal.
5. Some models have optional specifications (eg Turbine housing bolts or V-band arrangement). Both are shown for reference.
6. Some European OEM's and Holset Aftermarket torque tighten to 31.6 Nm (280 lb.in) under concession.
7. For latest Service Data Sheets and Bulletin Board information refer to the Holset website www.holset.co.uk.
8. Wastegate versions of H series turbochargers are pre-fixed with a "W". Refer to your nearest Holset agent for wastegate installation instructions.
9. HX20/25/27 compressor wheel nut (61) is tightened in 2 stages. Always use a new nut. Apply Molycote to nut or shaft thread. Torque to T1, loosen and re-torque to T2.
10. Allowable radial movement not applicable. Always install new journal bearings when rebuilding CHRA.
11. CHRA must be balanced after re-build using a high-speed vibration sorting rig (VSR). Since all vibration based tests are rig-specific, these figures are advisory only. Refer to your repair agent to warrant the durability, noise & vibration levels of the repair.
12. All fasteners must be visually clean and be lubricated with light oil prior to torque tightening except where the service repair manual instructs to the contrary. Exceptions are:
HX20W/HX25/25W/27W Compressor Wheel Locknut (61)/ V-band Locknut (28) - apply molycote.
All other V-band Locknut (28) (29) and Wastegate Valve Body Screw (79) - fit dry.
All fasteners treated with a thread locking patch - fit dry and within 5 minutes of insertion.
13. Refer to HX20W and HX25/25W/27W Service Repair Manuals for tightening procedure.
14. V band Part no. 3539458 superceded Part no. 3504959 from October 2002. Check part number to ensure correct torque setting is used during reassembly.

Caution

Always refer to [Service Notes](#) before using Holset Service Data.